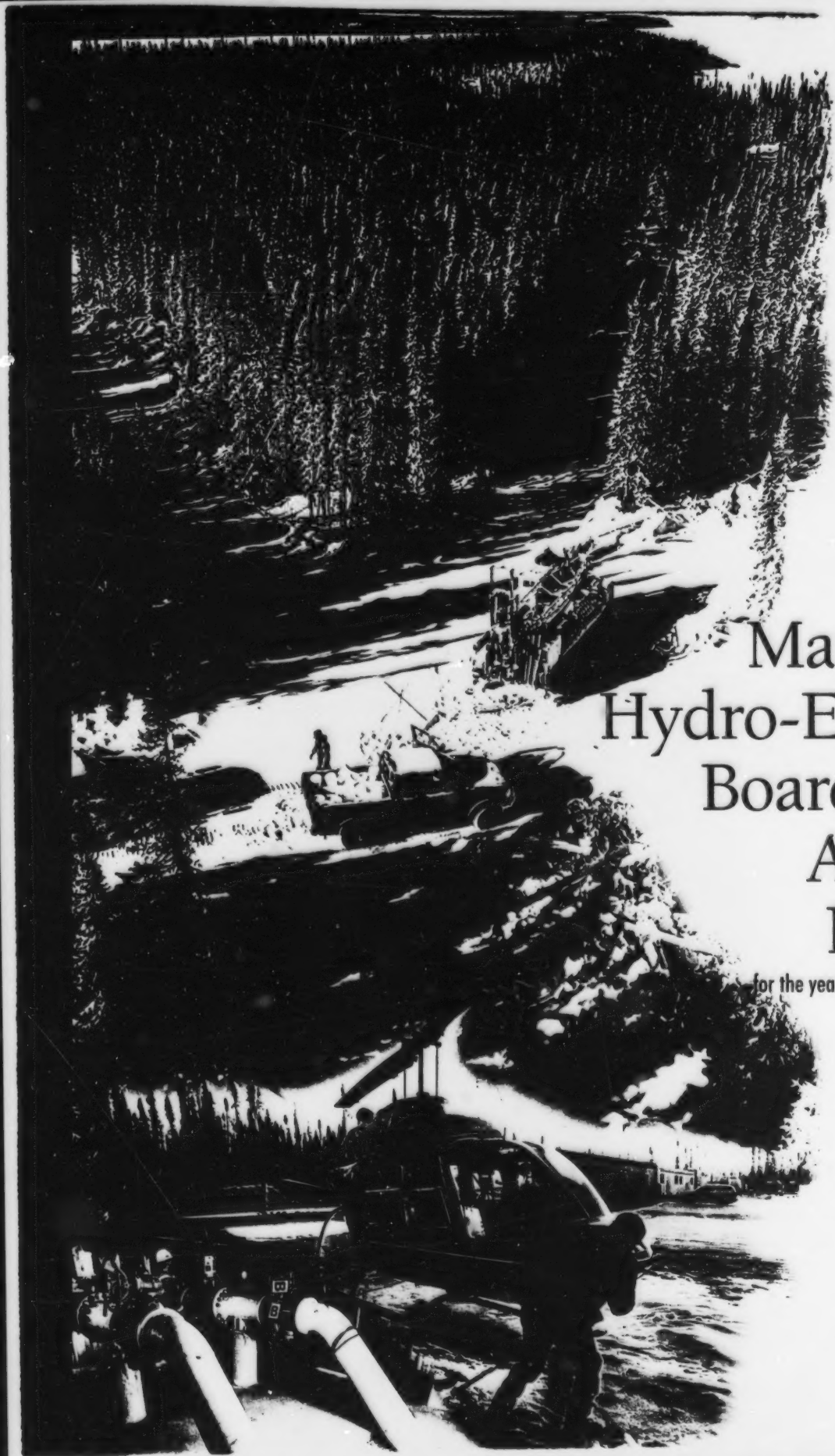


The Manitoba Hydro-Electric Board 49th Annual Report

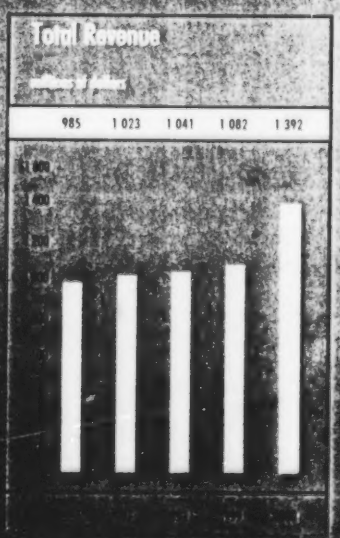
for the year ended March 31, 2000

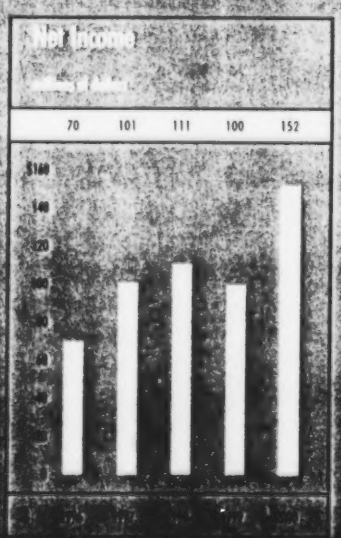
Highlights

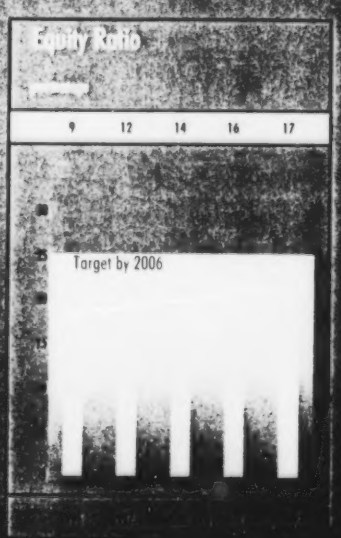
Manitoba Hydro acquired Centra Gas Manitoba Inc. to become the one-stop energy company in Manitoba. The purchase price was $242 million. Corporate income taxes paid by Centra Gas as a result of its change to non-taxable status amounted to $58 million.

For the year, consolidated net income was $152 million.

CONSOLIDATED FINANCIAL In millions of dollars		1999-00	1998-99	change (%)
Gross revenues		$ 392	$ 1 082	28.7
Electricity sales within Manitoba		747	756	(1.2)
Extraprovincial electricity sales		376	326	15.3
Natural gas sales		269	–	–
Net income		152	100	52.0
Retained earnings		818	666	22.8
Capital assets in service		$ 8 438	$ 7 815	8.0
Number of customers	Electrical	402 023	398 863	0.8
	Gas	245 761	–	–
Number of employees (regular)	Electrical	3 251	3 277	(0.8)
	Gas	355	–	–





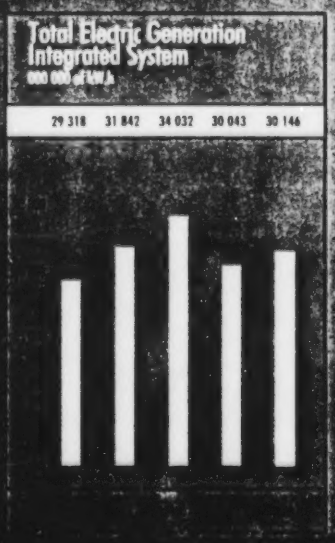


New record of $376 millon in export sales was achieved, up 15 per cent from last year's record.

No electricity rate increase in 2000-01, marking the fourth consecutive year of no rate increases for most customer groups. For industrial customers, in particular, rates have not increased in nine years.

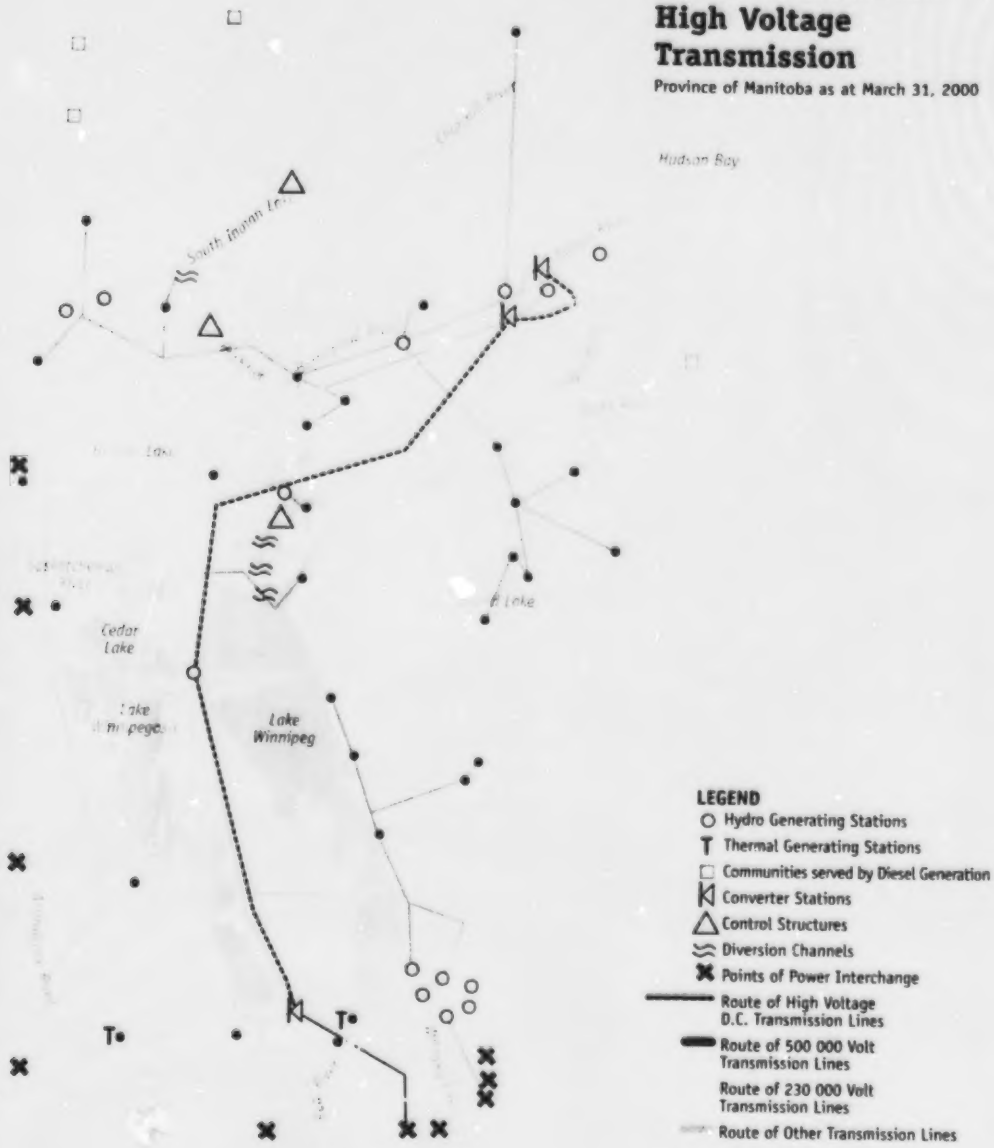
ELECTRICAL OPERATIONS	1999-00	1998-99	change (%)
in billions of kilowatt-hours			
Generation & Supply			
Total generation - integrated system	30.1	30.0	0.3
Energy supplied to Manitoba customers*	19.1	19.4	(1.5)
* includes Winnipeg Hydro			
in kilowatt-hours			
Manitoba peak load	3 524 200	3 559 400	(1.0)

GAS OPERATIONS - for the Eight Months Ended March 31, 2000			
in billions of cubic feet			
Gas Sales			
Small general service	21		
Large general service	13		
Other	3		
	37		
Transportation	19		
	57		



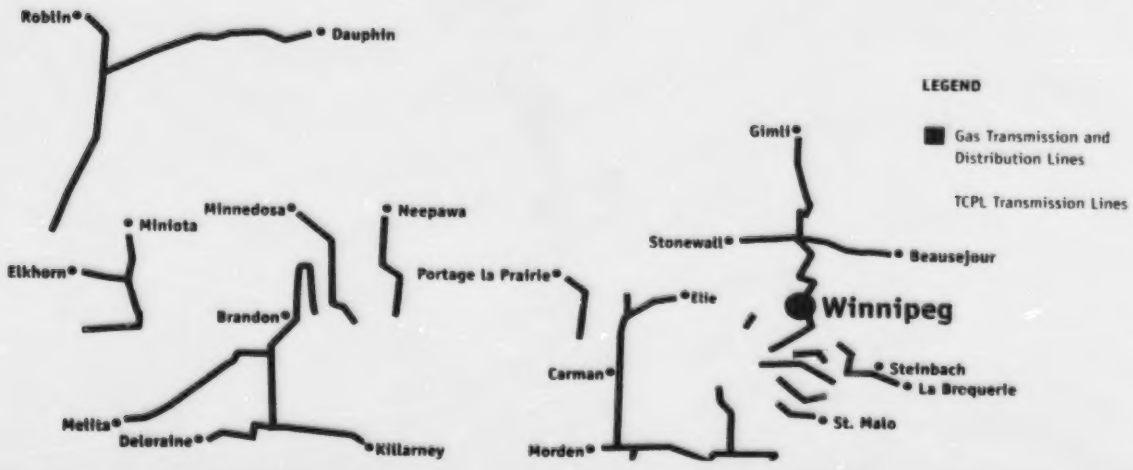
Power Sources and High Voltage Transmission

Province of Manitoba as at March 31, 2000



Centra Gas Manitoba Inc. Service Areas

as at March 31, 2000



100-06942/

To be recognized as the best utility in North America with respect to safety, rates, reliability, and customer satisfaction, and to be considerate of all people with whom we have contact.

To provide for the continuance of a supply of energy adequate for the needs of the province and to promote economy and efficiency in the development, generation, transmission, distribution, supply, and end-use of energy.

Provide and market, energy-related products and services, within and outside the province.

Continuously improve safety in the work environment.

Provide customers with exceptional value (rates, reliability, service and power quality).

Enhance aboriginal relations.

Improve corporate financial strength.

Increase gas customer base.

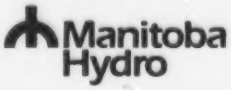
Increase export power net revenues.

Have highly skilled effective innovative employees.

Be a recognized leader in protecting the environment.

Be an outstanding corporate citizen.

Support business development in Manitoba.



820 Taylor Avenue
Winnipeg, Manitoba
Canada

Mailing Address
PO Box 815 — Station Main
Winnipeg, Manitoba
R3C 2P4

Manitoba Hydro: www.hydro.mb.ca

Manitoba Hydro International: www.mhi.mb.ca

Meridium Power Inc.: www.meridiumpower.ca

Telephone: 204.474.3311
Facsimile: 204.475.0069

Manitoba Hydro

Manitoba Hydro is a provincial Crown Corporation providing electric energy to 402 000 customers throughout Manitoba and natural gas service to 246 000 customers in various communities throughout southern Manitoba. We also have formal electricity export sale agreements with over 35 electric utilities and marketers in the midwestern U.S., Ontario and Saskatchewan. In 1999-00 our sales, including exports, totalled 27 732 GW.h, with sales in Manitoba totalling 61 per cent and sales outside Manitoba 39 per cent. We have consistently ranked as one of the top three exporting electric utilities in Canada. Over the last eleven years, Manitoba Hydro revenues from exports have multiplied almost five-fold, now amounting to over 33 per cent of the Corporation's total revenue from electricity sales.

We offer a wide range of energy services, either directly through our subsidiaries, or our strategic partners to our domestic customers as well as to the global marketplace.

Nearly all electricity generated is from self-renewing waterpower. On average, about 30 billion kilowatt-hours of electricity are generated annually: 75 per cent produced by five hydroelectric generating stations on the Nelson River and the remainder generated at seven hydroelectric stations on the Winnipeg, Saskatchewan, and Laurie rivers, two thermal stations and four diesel sites. The electricity is transmitted over nearly 100 000 kilometres of transmission and distribution lines. We also are the major distributor of natural gas in the province. The gas is delivered throughout the southern portion of the province to nearly 100 communities using 5 686 kilometres of our distribution pipelines.

Our capital assets in service at original cost exceed $8 billion, making us the fourth largest energy utility in Canada. Headquartered in Winnipeg, Manitoba Hydro has 80 offices throughout the province to serve its customers.

The Corporation's management reports to The Manitoba Hydro-Electric Board, whose members are appointed by the Lieutenant-Governor in Council.

GENERATING STATIONS AND CAPABILITIES

for the fiscal year ended March 31, 2000

(Normal Winter Capability at system peak)

Interconnected Capabilities

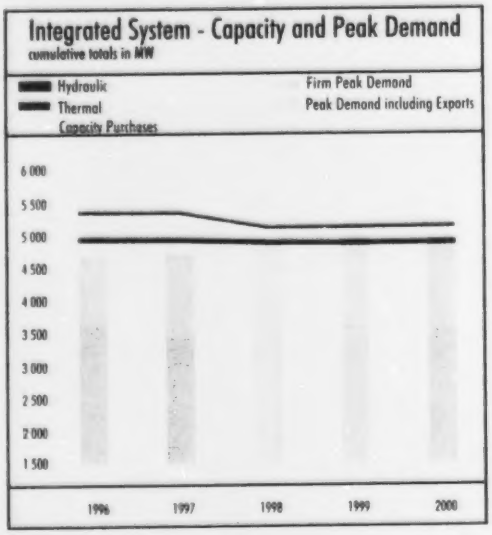
Station	Location	Number of units	Winter Capability (in Kilowatts)
Manitoba Hydro Hydraulic			
Great Falls	Winnipeg River	6	129 300
Seven Sisters	Winnipeg River	6	156 100
Pine Falls	Winnipeg River	6	87 500
McArthur	Winnipeg River	8	54 300
Grand Rapids	Saskatchewan River	4	479 900
Kelsey	Nelson River	7	209 200
Kettle	Nelson River	12	1 221 900
Jenpeg	Nelson River	6	95 000
Long Spruce	Nelson River	10	1 010 400
Limestone	Nelson River	10	1 295 100
Laurie River(2)	Laurie River	3	10 800
Winnipeg Hydro Hydraulic			
Pointe du Bois		16	66 000
Slave Falls		8	67 000
Manitoba Hydro Thermal			
Brandon		1	96 700
Selkirk		2	136 400
TOTAL INTERCONNECTED CAPABILITY			**5 115 600**

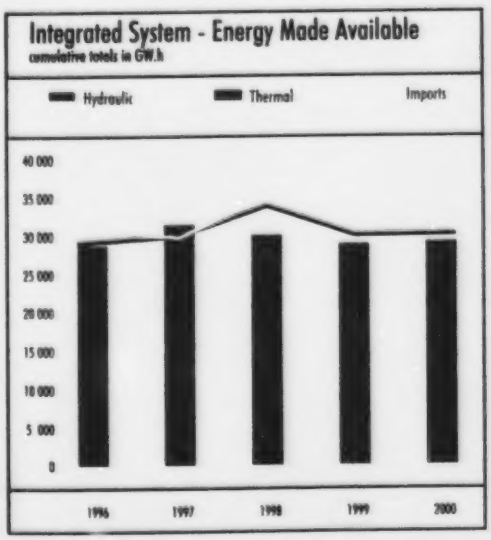
Isolated Capabilities

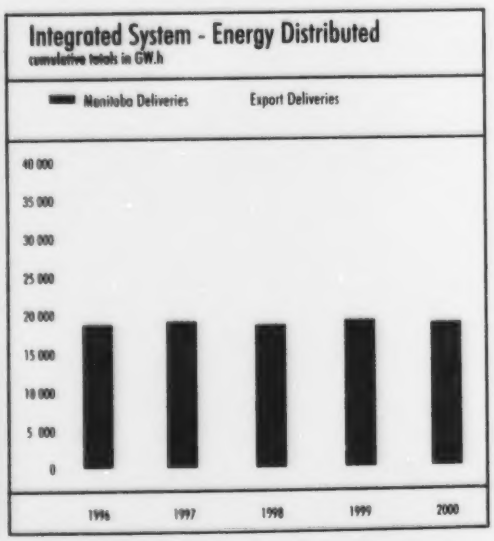
Manitoba Hydro
Diesel

Brochet	2 750
Lac Brochet	2 305
Shamattawa	1 750
Tadoule Lake	1 450

TOTAL GENERATING CAPABILITY 5 123 855







SOURCE OF ELECTRICAL ENERGY GENERATED AND IMPORTED

for the year ended March 31, 2000

NELSON RIVER	**74.68%**
23.2 Billion kW.h generated	
Limestone	23.69%
Kettle	22.39%
Long Spruce	18.85%
Kelsey	6.14%
Jenpeg	3.61%
WINNIPEG RIVER	**14.72%**
4.6 Billion kW.h generated	
Manitoba Hydro	
Seven Sisters	3.93%
Great Falls	3.37%
Pine Falls	2.35%
McArthur	1.49%
Winnipeg Hydro	
Pointe du Bois	1.84%
Slave Falls	1.74%
SASKATCHEWAN RIVER	**5.41%**
1.7 Billion kW.h generated	
Grand Rapids	5.41%
LAURIE RIVER	**0.21%**
Laurie River #1	0.10%
Laurie River #2	0.11%
THERMAL AND IMPORTS	**4.98%**
Thermal -	
0.7 Billion kW.h generated	
Brandon	1.15%
Selkirk	1.02%
Metered Imports -	
0.9 Billion kW.h generated	2.81%

The Manitoba Hydro-Electric Board 49th Annual Report

for the year ended March 31, 2000

Letter of Transmittal

July 31, 2000

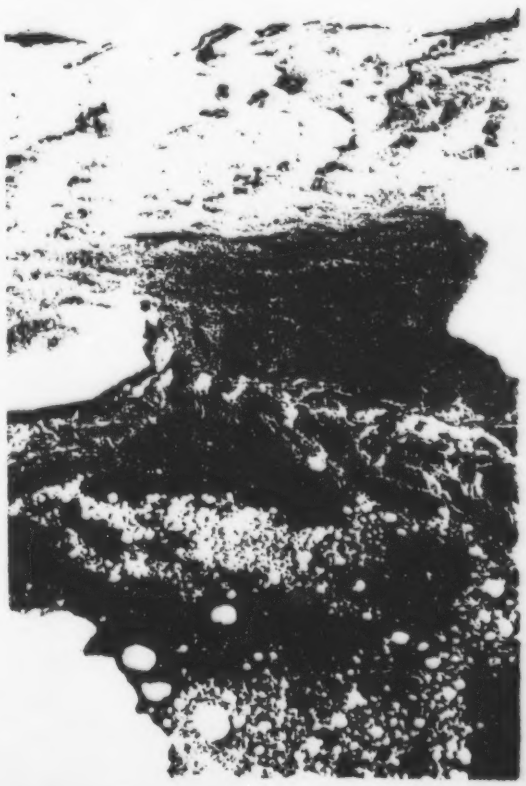
The Honourable Greg Selinger
Minister responsible for the
administration of
The Manitoba Hydro Act
Legislative Building
Winnipeg, Manitoba
R3C 0V8

Dear Minister:

I have the honour of presenting the 49th Annual Report of The Manitoba Hydro-Electric Board together with the financial statements for the fiscal year ended March 31, 2000.

Respectfully submitted,

Victor H. Schroeder, Q.C.
Chairman,
The Manitoba Hydro-Electric Board



Contents

Vision, Mission and Goals	front gatefold
Corporate Profile	back gatefold
Financial and Production Highlights	inside front gatefold
Maps of Major Electric and Gas Facilities	inside back gatefold

Chairman's Message	4
President's Message	6
The Year in Review	8
Financial Review	
Management's Discussion and Analysis	41
Management Report	51
Auditors' Report	52
Consolidated Statement of Income and Retained Earnings	53
Consolidated Balance Sheet	54
Consolidated Statement of Cash Flows	56
Notes to the Consolidated Financial Statements	57
Consolidated Financial Statistics — A 10-year overview	68
Operating Statistics — A 10-year overview	69
Members of the Board & Manitoba Hydro Senior Officers	70
Glossary	72

On the cover: Converging energy sources: Manitoba Hydro moves forward to becoming the one-stop energy service company in Manitoba with the acquisition of Centra Gas. Exploratory work is undertaken at one of the potential future hydroelectric generating sites—Wuskwatim—on the Burntwood River.

Chairman's Message

As the new Chairman of The Manitoba Hydro-Electric Board, the past several months have been an intense and interesting period during which I have familiarized myself with the issues and opportunities currently faced by Manitoba Hydro. Those issues have changed significantly over the past decade.

At the same time, other issues look similar to discussions held in past decades. For instance, Manitoba Hydro is currently in the process of attempting to extend its 500 megawatt sale to Northern States Power. That is the tremendously successful export power contract which triggered the construction of the Limestone Generating Station back in the mid-1980s.

Manitobans realize that Manitoba Hydro is a tremendous asset to the province, producing reliable, low cost electricity. We are today witnessing increased market opportunities for export sales as well as better selling prices. At the same time, Manitoba Hydro must be prepared for a more competitive electricity industry in the future.

Continued low rates for Manitoba consumers promise to maintain "the Hydro advantage" for our province, including our prices for industry and business to whom low electricity rates constitute a competitive advantage over their rivals in other jurisdictions. Manitoba Hydro's continued financial success will maintain that competitive advantage.

At the same time, I must tell you that we have some unfinished business with respect to the hydroelectric development which took place in the 1970s. While arrangements have been made over the past decade to deal fairly with the disastrous circumstances surrounding that development for four of the five First Nations communities affected, we have yet to see our way through to implementation of the Northern Flood Agreement at Cross Lake. Our policy is that, in all cases, we will treat communities and individuals impacted by our activities with fairness.

Manitoba Hydro is currently studying in detail whether to propose the development of further hydroelectric sites in northern Manitoba. We are in the process of negotiating true

partnership agreements with those First Nations communities whose resource areas would be affected. Environmental, financial, economic and jobs issues will be priority issues in our deliberations with the First Nations.

The acquisition of Centra Gas during the past year has also led to opportunities to provide more efficient and effective services to our customers.

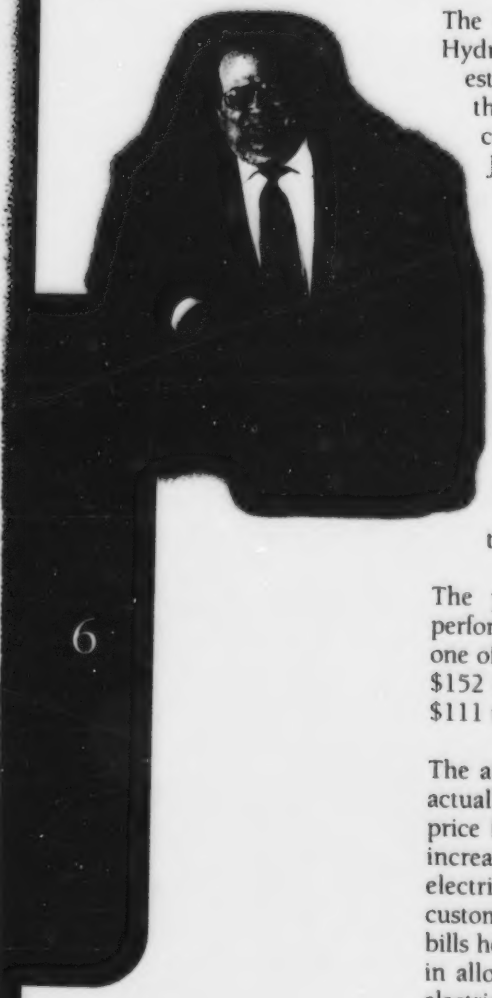
We are committed to ensuring that Manitoba Hydro survives and thrives as a significant asset to the province in the years ahead. Further prudent resource development, coupled with cost-effective conservation, will ensure that this will happen.

On behalf of the Board, I would like to commend all of the employees of Manitoba Hydro and Centra Gas for their dedicated efforts over the past, very demanding year.

I would also like to take this opportunity to thank the former Members of the Board of Directors of Hydro, and especially John McCallum, for their dedicated service to Hydro and to Manitobans, and to congratulate and welcome the new Members appointed to our Board in February.

Victor H. Schroeder, Q.C.
Chairman,
The Manitoba Hydro-Electric Board

President's Message



The 1999-00 fiscal year was an extraordinary one for Manitoba Hydro. On the Eve of celebrating the 50th anniversary of the establishment of The Manitoba Hydro-Electric Board in 1951, the Corporation is taking new paths in the province by completing the acquisition of Centra Gas Manitoba Inc. in July, 1999. We are now the one-stop energy supplier for Manitobans, able to offer comprehensive energy expertise and service to our customers.

Following review and approval of the Centra Gas acquisition by The Public Utilities Board, staff from both organizations have been engaged in an extensive integration process, with teams of employees meeting to ensure comprehensive integration plans are developed for the many different aspects of our operations. Tremendous progress has been made by the employee teams in bringing together the two organizations. We are well on our way to realizing the synergies that were expected when the acquisition was proposed.

The year was also exceptional with respect to financial performance. All-time high export revenues of $376 million was one of the factors in establishing a new record for net income of $152 million, a 37 per cent increase over the previous record of $111 million established in 1997-98.

The amount of energy exported, 10.9 billion kilowatt-hours, actually declined slightly from the previous year but the unit price for exports increased by 21 per cent, accounting for the increase in revenues. An active and rewarding market for electricity has a number of implications for Manitoba Hydro customers, one of the main impacts being stability in electricity bills here in Manitoba. Success in the export market has assisted in allowing Manitoba Hydro to maintain the same residential electricity rates for Manitobans for four years and to maintain industrial rates unchanged for nine years. Manitobans have the distinction of having the lowest overall electricity rates in North America.

In addition, the attractive market for export sales has caused Manitoba Hydro to revise its long-term plans for electricity generation in the province. In March, 2000 plans were announced to build a natural gas combustion turbine in Brandon, expected to be in service in 2002. This facility, although it is not expected to be operated extensively, will provide the required energy support in low flow years and allow the Corporation to export more generation from its hydroelectric facilities on a guaranteed basis which are at higher prices.

Manitoba Hydro is also examining the options for additional hydroelectric generating facilities in northern Manitoba. In close cooperation with local First Nations, the Corporation is undertaking the necessary planning and environmental studies to enable it to make a proposal within the next year with respect to one or more of the three possible sites now being studied. The electricity produced by any such future developments would be sold into the export market, and used to meet the Manitoba load requirements in future years. Decisions regarding the possible development of any such plants will be made next year.

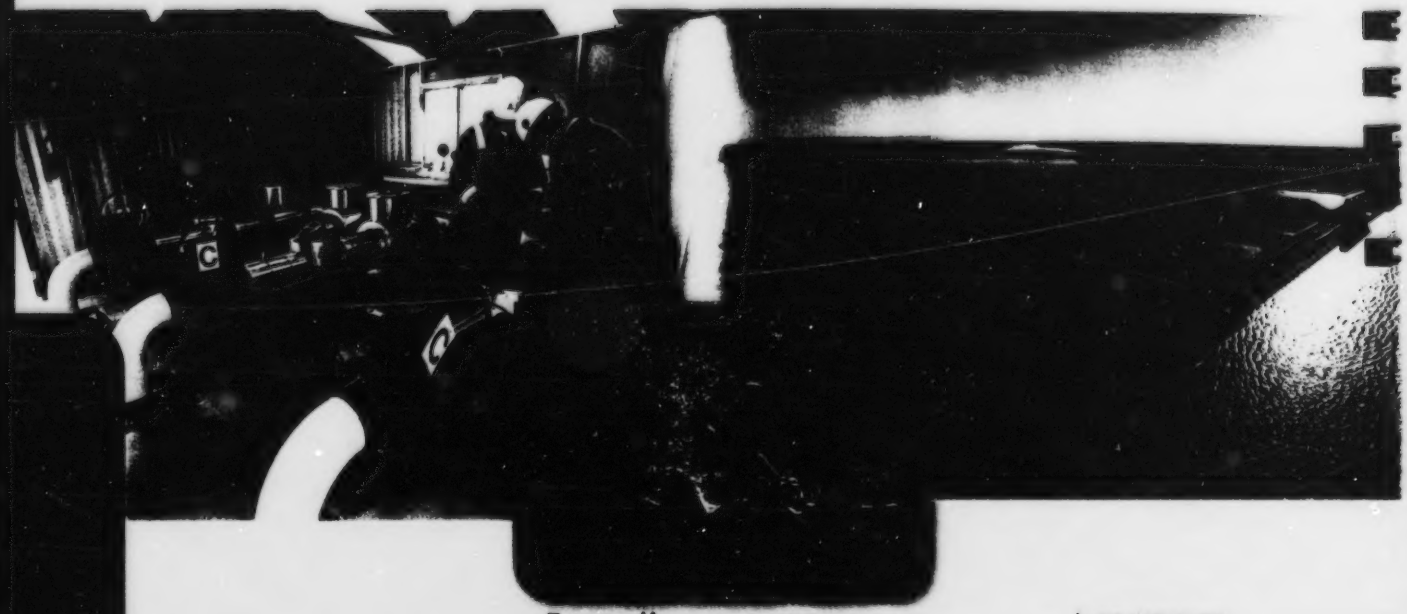
Manitoba Hydro, through its Power Smart Programs, has encouraged customers to choose energy efficient electric products and lifestyles, ultimately saving on their hydro bills. Reduced consumption allows customers to save on their energy bills while Manitoba Hydro is able to sell the power conserved on the export market and defer the cost of new facilities.

I also want to note the continuation of efforts during the year to acknowledge and deal with impacts from past development projects. In August, 1999 work was completed on the Lower Churchill River Weir project. Spanning the Churchill River about 10 kilometres from the Town of Churchill, the weir backs up the river flows, increasing water levels and creating a reservoir. This has improved the fish habitat, and also allows for increased recreational opportunities for local residents. Decreased water flows on the Churchill River resulted from the operation of the Churchill River Diversion project, undertaken by Manitoba Hydro in the mid–1970s. This is one example of an ongoing and substantial effort by the Corporation to make every effort to mitigate the impacts of past projects or, where that is not possible, to compensate the people affected. We now have a number of agreements with First Nation and other communities impacted by projects and have moved on to much improved relationships with them. We also have one major unresolved situation with the Cross Lake First Nation that we are committed to addressing.

I would like to acknowledge the contributions of the former Chairman of The Manitoba Hydro-Electric Board, John S. McCallum, and to Victor H. Schroeder, Q.C., the current Chairman, for their valuable assistance to me. The employees of Manitoba Hydro and Centra Gas are congratulated for their significant efforts during the year in bringing our electricity and natural gas operations together. Without their sincere and enthusiastic cooperation, we would not have been able to attain the many achievements recorded to date.

R.B. Brennan, FCA
President and Chief Executive Officer

The Year in Review

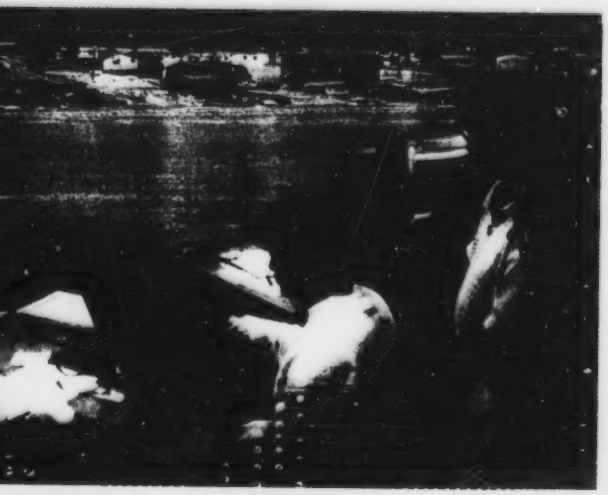


Expanding our energy service options

A one-stop energy company providing customers with both gas and electric energy choices

With Manitoba Hydro's acquisition of Centra Gas Manitoba Inc. in July 1999, the two utilities began the process of integrating their operations. Rural facilities have been integrated in 12 locations with Centra Gas and Hydro staff now working out of the same building and sharing tasks where appropriate. Of the remaining locations, Portage and Brandon offices are scheduled for integration later this year. Customers visiting those integrated offices benefit from a one-stop service. The integration also provides some Centra Gas customers with direct access to a Company business office.

Our electric customers grew by 0.8 per cent to 402 023 during the fiscal year. Residential and business customers now total 352 618 and 49 405 respectively. Natural gas customers as of July 1999 to March 2000 were 245 761. Of that total, there are 222 110 residential and 23 651 business gas customers.



Monitoring the Year 2000 turnover.

Power system flawless at turn of millennium

On New Year's Eve, Manitoba Hydro and Centra Gas employees kept watch at various locations throughout the province during the Y2K rollover. Due to the intensive planning efforts and dedication of the two companies' Y2K Task Force members and the cooperation of all employees — January 1, 2000 passed without incident. Coordination with neighbouring utilities, the Mid-Continent Area Power Pool, the North American Electricity Reliability Council, the Canadian Electricity Association and the Canadian Gas Association also ensured a smooth and uneventful rollover. Thousands of embedded computer chips in a variety of power systems' computers and controllers were tested, reset or replaced throughout the year.

Lowest rates maintained

Our electricity customers saw no increase to their rates, following similar decisions not to increase rates in 1998 and 1999. For large industrial customers in particular, rates have been held constant for nine years, enabling Manitoba business to remain very competitive with respect to electricity costs. We continue to offer flexible rate options to our industrial and commercial customers. Manitoba's electricity rates remain the lowest overall in Canada and among the lowest in the world.

Volatility in gas supply markets has affected prices to consumers. Following a gas rate decrease for residential customers in July 1999 of 6.5 per cent, customers saw an increase in their energy bills of approximately 4.0 per cent effective December 1, 1999. Industrial gas customers experienced a 4.1 per cent to 5.9 per cent increase depending on consumption.

Using energy more wisely

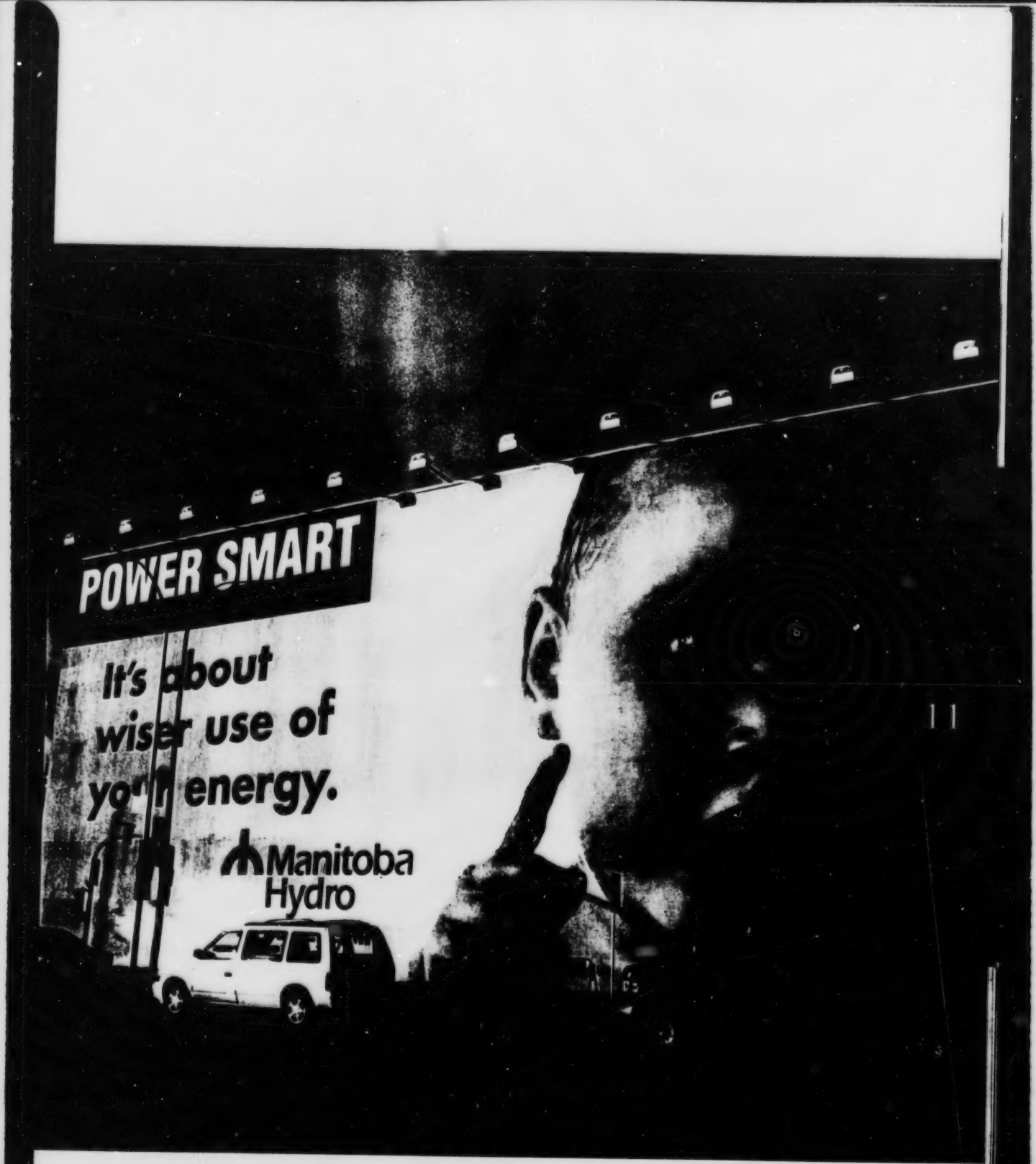
Manitobans continue to embrace the products and services under the Power Smart® banner. In 1999, we launched a new multi-media campaign aimed at residential electric customers. The focal point of the campaign was the 15-metre Power Smart baby mural on a Manitoba Hydro substation building in Winnipeg. Since 1991, Power Smart has worked in reducing energy use in the domestic market so that Manitoba Hydro is able to keep rates low by deferring the need to invest in capital facilities to meet Manitoba needs. The initiative is on target and is expected to achieve cumulative total savings of 334 MW and 1 229 GW.h by the year 2011.

Business community benefits from our know-how

To build and enhance business relationships and customer loyalty we have participated in a number of partnerships with the business community.

Manitoba Hydro collaborated with the Food Development Centre, Innovation Technology Centre and others in hosting a seminar on Food Preservation Technologies. Exploring new technologies in this area are vital for manufacturers and processors in agri-food industries to maintain a competitive advantage and enhance product value. Information seminars for milk producers were also held on such topics as tingle voltage, standby generators and upgrading lighting systems in farm applications.

Centra Gas, working along with members of the Manitoba Home Builders Association launched a new "Plug into Natural Gas" Program. The program introduced a new gas supply pressure panel for residential customers, which simplifies and reduces the cost of multiple gas appliance installations, particularly in new housing construction. The manifold system, which uses flexible tubing and quick disconnects, was displayed in a number of showhomes during the province's annual Parade of Homes campaign.



The Power Smart baby mural dominates a Winnipeg intersection.

Taking the definition of essential service to a higher level is Hydro employee Parker Fitzpatrick in the Town of Churchill.

Storms take toll on service

Manitoba Hydro operates its electric system in one of the harshest and most diverse climatic regions of the world. With our four distinct seasons, each brings the possibility of storms that can and do impact service to customers. This fiscal year was no exception with wind playing a major role in disruption of power.

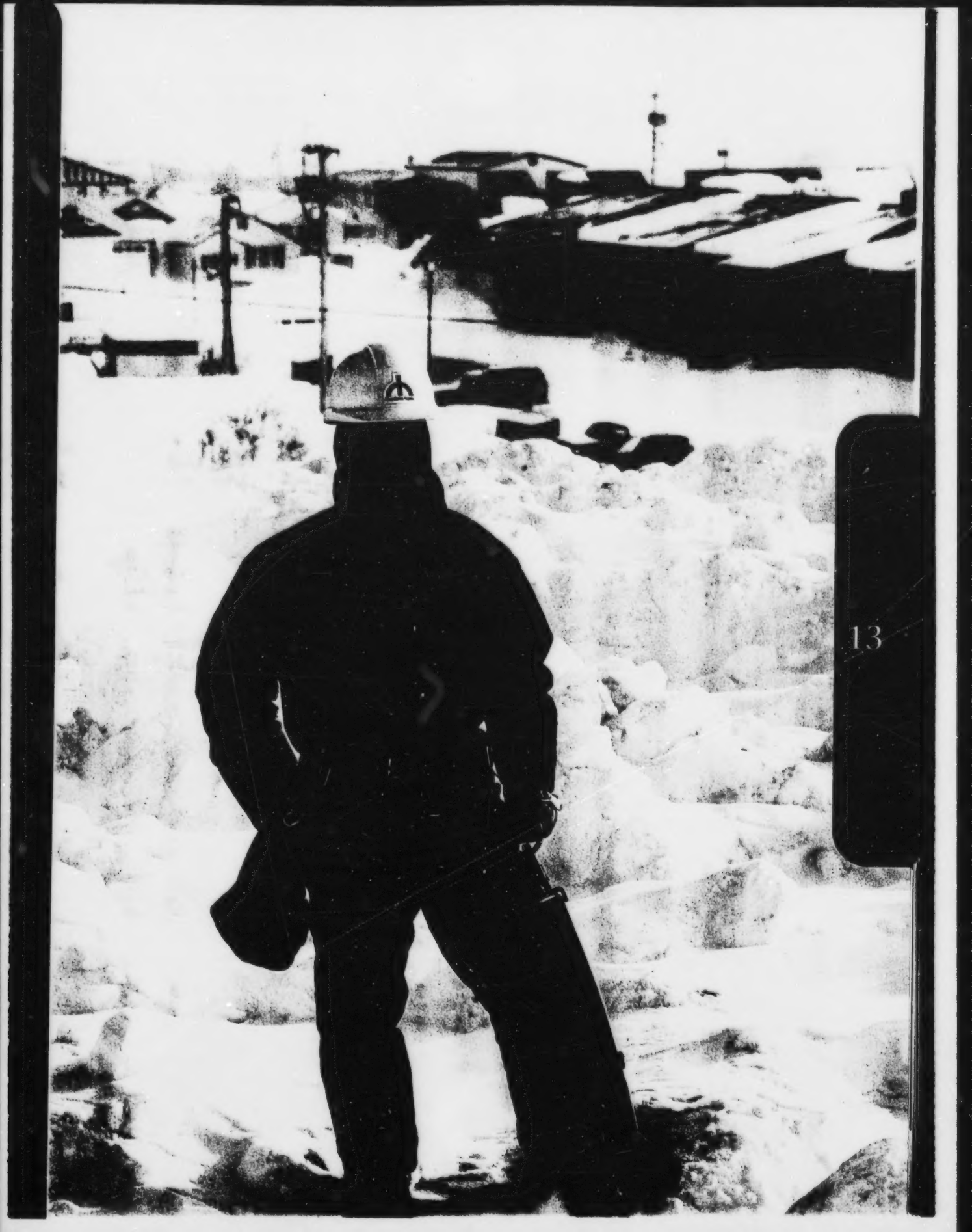
A particularly fierce winter storm, with winds clocked at 130 km per hour across central and northern Manitoba resulted in numerous outages during the Christmas period. The storm hit Manitoba's most northerly town, Churchill, the hardest leaving some residents without power for 12 hours beginning on Christmas Eve. A state of emergency was declared for the community and its affected residents. Our one stationed employee worked for more than 48 hours continuously to ensure one distribution feeder was left operational. Two community residents assisted in the crisis by responding to customer calls over the crucial period. Reinforcements arrived on Boxing Day from Thompson and Winnipeg to aid in the power restoration effort.

Energy cost saving solutions for business

As the energy business is rapidly changing, so are our customers' business expectations from their energy supplier. We continue our support to various industries around the province by introducing new technologies that will bring energy cost savings to their overall operations.

A collaborative effort between volunteers from the community of Swan Lake, professional engineers and contractors and Manitoba Hydro won top prize in the building project category of Canada's National Energy Efficiency Awards in May 1999.

The Swan Lake Recreation Complex, is a unique example of a community centre that uses established technologies including



integrated heating, cooling and ice making systems plus some fresh approaches to lower operating costs. The extra energy saving technologies had a price tag of $60 000 more than conventional retrofits, but allow the complex to operate for about 50 per cent of the cost of comparable facilities. With actual savings of at least $30 000 per year for the residents of Swan Lake, these improvements were paid off in just two years. Its innovative energy efficiency features have been replicated in other facilities throughout western Canada and the United States.

Tolko's paper mill and sawmill at The Pas have saved more than $125 000 a year thanks to Power Smart efficiency measures targeted at their compressed air systems. The measures were introduced based on audits of both mills following attendance at the Manitoba Hydro sponsored seminar on compressed air. The two-day workshop focussed on understanding and improving the performance and reliability of a company's air systems while substantially reducing operating and maintenance costs.

Motor Coach Industries is also expected to benefit from Manitoba Hydro's compressed air audit by lowering its operating and maintenance costs by $100 000 through recommended project improvements.

Friesen Corporation, a printing company based in Altona, solved its pressure fluctuation problems by adding a large storage receiver tank and flow control. System improvements reduced operating and maintenance costs by 13 per cent, for yearly savings of $10 000. In addition, a proposed new water pressure humidification system will cut its annual electricity bills by $18 500.

Centra Gas operations also provided assistance to some of our major industrial customers. Griffin Steel was supplied with various piping solutions allowing them to accommodate supplemental oxy-fuel (natural gas) burners in their induction furnace. At the Saputo Cheese plant in Souris, a meter consolidation was recommended providing potential annual cost savings for the customer of $10 000. Assistance was also provided at a number of customer plant expansions and to address gas equipment conversions.

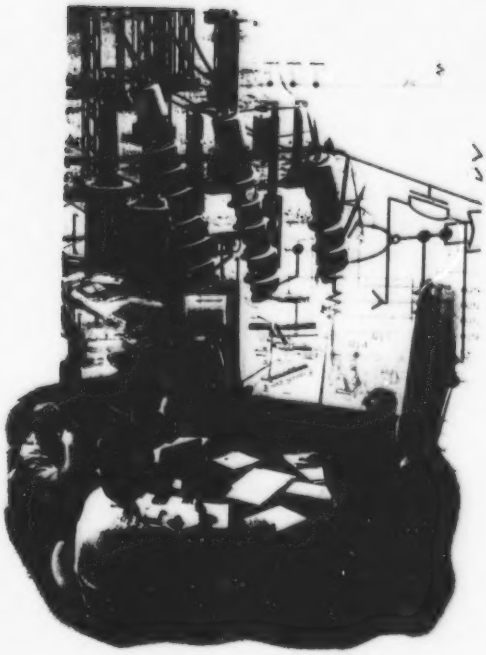
Manitoba Hydro is also actively recruiting assistance from technical and business specialists from outside our organization

as well as from within to help build a compelling case for companies to select Manitoba as the location for new production facilities. Our strategy is to work with the priority areas established by the provincial, city and municipal governments and to assist them to achieve their economic development goals by supplying energy-related information. One such example of a project just completed is an interactive CD-ROM called the Manitoba-Made Agri-Business Advantage. It features 180 agri-industrial and 270 agri-food companies with links to each of their web pages as well as to the Manitoba Companies Database. It will be used by 79 Canadian embassies worldwide to promote Manitoba and will be used by various groups attending trade shows across North America.

Electric industry deregulation impacts

Manitoba Hydro has taken a number of measures in response to opportunities created by deregulation of the electrical industry. We have participated extensively in the activities of the Mid-Continent Area Power Pool (MAPP) aimed at encouraging the development of a wholesale power market in the mid-west region. A new Mid-West Independent System Operator organization, planning to become operational in mid-2001, has proposed that MAPP join the new organization. Manitoba Hydro also enacted a revised Open-Access Transmission Tariff and implemented Standards of Conduct, to ensure that its transmission and reliability operations are carried out independently of marketing activities. These measures are part of the Corporation's ongoing efforts to operate its system fairly and to protect access to export markets.

The North American Electricity Reliability Council continues to encourage United States federal legislation that would provide common reliability standards for all electricity providers. Deregulation and open access transmission has introduced many new entities and has resulted in congestion on the electrical grid in many locations in North America. Manitoba Hydro, along with other Canadian utilities and governments, is working with regulators to develop a Canadian approach towards ensuring mandatory reliability standards as opposed to the current voluntary standards.



A high wire act that ensures power reliability to our customers.

Building on our network of reliability

We continued to enhance the capacity, reliability and flexibility of our transmission and distribution system, thereby better serving our diversified and widespread customer base.

Plans are proceeding for a new 230 kV transmission line from Glenboro, Manitoba to Rugby, North Dakota that will provide significant benefits for improving the reliability in western Manitoba and improving the ability to transfer electricity between Manitoba and North Dakota. Manitoba Hydro, Otter Tail Power and Northern States Power are now seeking the approval of various state and legislative bodies for an in-service date of October 2002.

Planning for network reliability.

A pre-feasibility study concluded on the viability of constructing a transmission line from Churchill, Manitoba north into the Kivalliq Region of the new Nunavut Territory, a distance of about 640 kilometres. The proposed communities to be served are Arviat, Rankin Inlet and Whale Cove. The study also included an evaluation of possible communication systems, which could provide enhanced service to the region, as well as an assessment of local small hydroelectric development opportunities. The findings of this study have been presented to the Nunavut and Manitoba governments and at various information sessions to local affected communities and First Nation leaders.

Construction was completed in March on the second stage of a new 230 kV transmission line, approximately 255 kilometres between Dorsey Converter Station and Brandon via Neepawa. The line replaces a 115 kV woodpole line and will provide system improvements required for future load growth in Brandon and support for the Neepawa area. The $50 million project was placed in service by the end of April 2000.

New stations were constructed in Gladstone and Virden while a new 115 kV station was built in Brandon to service the new Maple Leaf processing plant. The first stages of a five-year rebuild on a 45-year-old 66 kV transmission line began between Birtle and Foxwarren. Work was begun on new stations at Pukatawagan and Gull Lake to strengthen service reliability in those regions. In the Charleswood area of Winnipeg, a three-year program to upgrade underground facilities was begun to address the source of outages in recent years.

A new Brochet diesel generating station was placed into service in late summer 1999. The station included a new diesel automation control system that can be accessed by conventional telephone lines. It was designed and constructed as a combined effort between a Winnipeg engineering consulting firm and our joint venture, Progressive Energy Solutions.

The Harrow substation salvage project was completed with all of the 4 kV load transferred to the Fort Garry-Southwood station. The existing Harrow control building, while still maintaining Manitoba Hydro control and protection devices, will now accommodate a new Manitoba Electrical Museum scheduled to be opened in 2001.

Customer load growth and growing system requirements resulted in a number of ongoing requirements for transmission and distribution. Station upgrades, additions and rebuilds were completed at Cromer, Saltel, Finns, St. Pierre, Camperville, Woodlands, Lord Selkirk-Inkster, Oakbank, Little Grand Rapids, Letellier, Souris, St. Leon, Brandon, Fort Garry-Mohawk, LaVerendrye, Assiniboine-Wilkes, Mafeking, Portage, Ridgeway, St.Boniface-Dawson Road, St. Jean Baptiste, Transcona-Day, Gladstone, Rapid City, Virden-Wallace and Sprague South. The Sprague South station was part of the contract we entered into with Minnkota Power Cooperative, to upgrade the electrical facilities that supply the Northwest Angle in Minnesota.

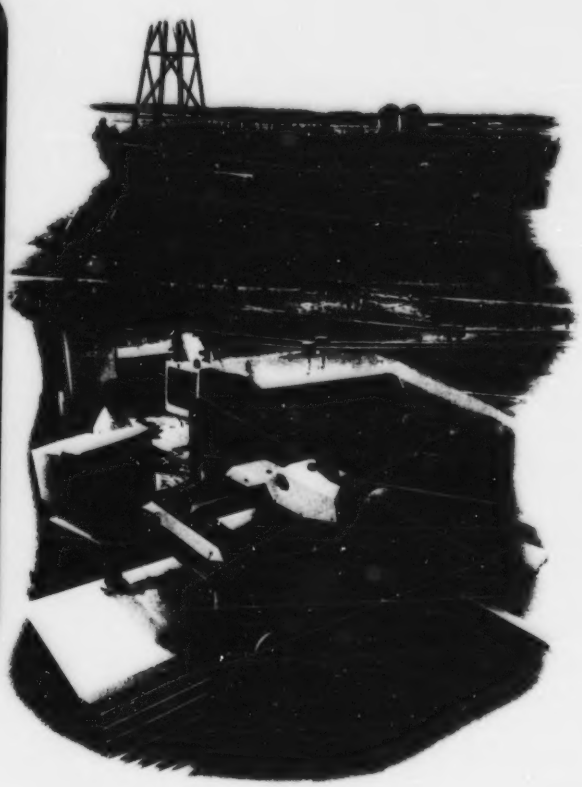
Expansion of natural gas service

Manitoba Hydro expanded its natural gas service in three areas during 1999-00. The communities of West Lynne and Kola as well as the east part of the Portage la Prairie municipality all received additional pipelines into their respective areas. Demand for natural gas continues to grow throughout rural Manitoba. At year-end, gas pipelines were extended into the rural municipalities of Hanover and La Broquerie. A hearing on an application filed in 2000 to extend service to the communities of Warren, Teulon, Arborg, and Riverton in the Interlake Region is expected to begin in May 2000. We look forward to extending the availability of natural gas throughout Manitoba, where economically feasible, and satisfying our role as a full service energy provider.

Our gas operations ensure safe, reliable, courteous customer service through attention to detail and highly skilled employees.

HVDC system acquires spare transformer replacements

A strategy to maintain, on an ongoing basis, one spare transformer for every HVDC converter transformer is expected to reduce the outage time for converter transformer failure from approximately 18 months to two to three weeks and will significantly improve our HVDC transmission capability. The HVDC system is very important to Manitoba Hydro, transmitting approximately 75 per cent of Manitoba's total energy requirements from the Nelson River in the north to the south.



Mapping our infrastructure to a computerized world

The MapInfo project continues to map our power distribution system on a geographical base within Manitoba. More than half of our electrical distribution network is mapped to date with completion scheduled for 2001. Several applications have been implemented to improve the efficiency of the distribution system and assist planners and designers in improving the map maintenance functions. Work is proceeding on adding new applications for property management and transmission line maintenance. The dissemination of the mapping information and electrical system models are all made possible by the installation of wide-area computer communication networks throughout the province.

Mapping of over 100 000 kilometres of transmission and distribution lines continues.

During the year, we entered into a cost-sharing agreement with the Province, the City of Winnipeg and some municipalities to acquire base maps upon which to locate energy distribution infrastructure such as poles and underground wires. Through cooperative efforts such as this, Manitoba Hydro is able to encourage the exchange of facility location information with other interested parties. As the conversion from paper drawings to computer generated maps nears completion, electric and gas distribution will be available for viewing on one map. The end result will be better service to our electric and gas customers as better restoration management and facility location services are introduced based on accurate and up-to-date distribution maps.

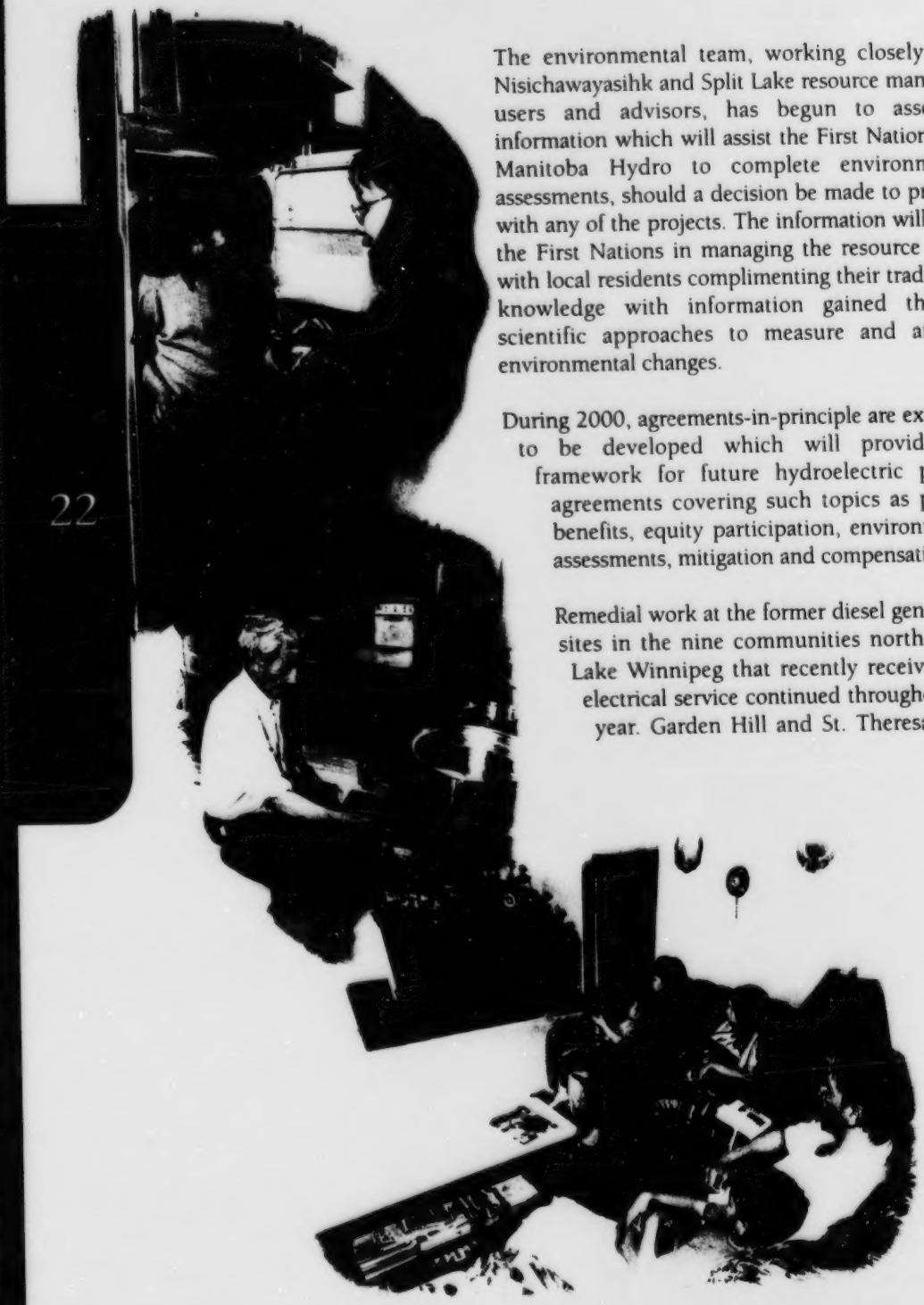
Fibre optics system in place

Changes in telecommunications carrier technology and reduced availability of manufacturer and technical support has prompted the replacement of the 25-year-old Winnipeg River microwave system. The new 94-kilometre fibre optic cable system extends from Winnipeg to generating station sites along the Winnipeg River between Seven Sisters and Pine Falls. Communications traffic will be fully operational on the new system by December 2000.

Better Aboriginal relations forged in partnerships

We are working with two northern Cree First Nations, the Nisichawayasihk Cree Nation and the Split Lake Cree First Nation, and an environmental team of scientists, socio-economic specialists and environmental engineers in planning potential hydroelectric developments. Maximizing local opportunities from these projects is also being discussed. The opportunities include training, jobs, business, and financial participation in a generating station.

Two of the sites, Wuskwatim and Notigi, are in the Nisichawayasihk resource area, and the Gull site is in the Split Lake resource area. Both First Nations have comprehensive implementation agreements under the Northern Flood Agreement with Canada, Manitoba and Manitoba Hydro.



The environmental team, working closely with Nisichawayasihk and Split Lake resource managers, users and advisors, has begun to assemble information which will assist the First Nations and Manitoba Hydro to complete environmental assessments, should a decision be made to proceed with any of the projects. The information will assist the First Nations in managing the resource areas, with local residents complimenting their traditional knowledge with information gained through scientific approaches to measure and analyze environmental changes.

During 2000, agreements-in-principle are expected to be developed which will provide the framework for future hydroelectric project agreements covering such topics as project benefits, equity participation, environmental assessments, mitigation and compensation.

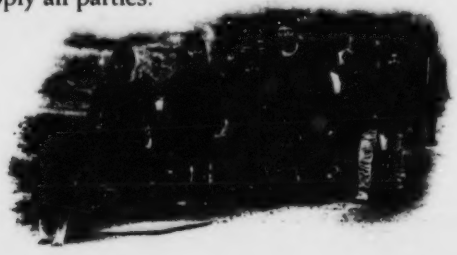
Remedial work at the former diesel generating sites in the nine communities northeast of Lake Winnipeg that recently received full electrical service continued throughout the year. Garden Hill and St. Theresa Point

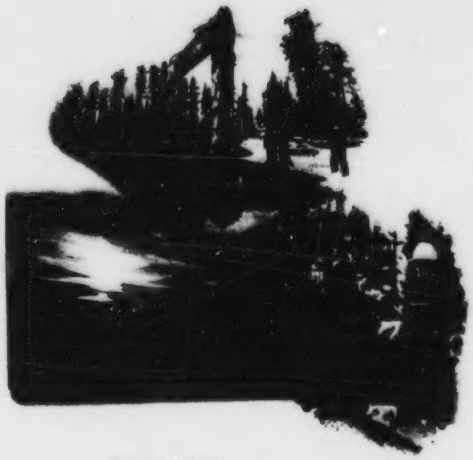
Customers northeast of Lake Winnipeg move from having limited service to taking advantage of all the amenities full electrical service brings.

diesel generating units and fuel tanks were salvaged over the winter while site remediation work commenced at God's River. Negotiations are underway with respective First Nations for site soil remediation work at Oxford House, Garden Hill and Red Sucker Lake.

Above normal winter temperatures played havoc with fuel and supplies transportation to remote northern locations. Winter road access to the Island Lake area via the east side of Lake Winnipeg was limited and open to light traffic only due to the unseasonable warm weather. The winter road from Norway House to Island Lake, constructed by the Playgreen Lake Development Corporation, was the main route to Island Lake. This road was eventually taken over by the Department of Highways. Forty loads of salvage material were hauled from the Island Lake former diesel site. Fuel and supplies were also delivered to Shamattawa. The province developed a new overland route to Brochet and Lac Brochet in 1999-00 facilitating the delivery of fuel and supplies to these communities. Unfortunately, the winter road to Tadoule Lake was never opened, deferring the transportation of fuel to the following year.

In Gillam, we worked with the Fox Lake Business Development Corporation and Tru-Serv Co-operative of Canada Ltd. to bring about a needed service to that northern community. The establishment of the Fox Lake True Value Hardware and Lumber store will create long-term employment, training and business opportunities for the residents of Gillam and surrounding communities. For our northern operations, it has meant the establishment of a very close working relationship with our supplier of goods while single sourcing for our equipment and product requirements creates better buying power for the store to supply all parties.





Construction programs and constructive dialogue all contribute to mitigating the impacts of northern hydro development.

Meeting our obligations

We continue to focus our energies on concluding implementation agreements with communities impacted by northern hydro development. We are committed to learning from our past and using our improved understanding to plan better for the future.

Four of the five signatory First Nations to the 1977 Northern Flood Agreement (NFA) have benefitted from Comprehensive Implementation Agreements. They are Split Lake Cree First Nation in 1992, York Factory First Nation and Nelson House First Nation both in 1995 and Norway House Cree Nation in 1997.

We remain committed to finding an effective means of implementing the NFA with the Cross Lake First Nation. To date various compensation/mitigation programs in excess of $37 million have been implemented at Cross Lake including: road upgrading, building relocation, docks, bridge construction, slope protection, arena construction including operating and maintenance, weir construction, safe ice trails, overland trails, navigation aids, portages, debris management program, cemetery protection, trapping and fishing programs, personal property damage programs and funding the cost of Cross Lake's legal counsel, consultants and community members in participating in ongoing discussions. This past year an Alternative Foods program to mitigate domestic fishing impacts was upgraded to provide alternate foods for a hot lunch program for students. In addition a debris removal program in the Jenpeg forebay, funding for recreational activities, improving access for trappers who wish to continue their traditional pursuits, cemetery protection at Sipiwesk Lake and a firewood program for elders have been provided.

With respect to other outstanding NFA issues, efforts continue toward resolving the federal government claim against Manitoba Hydro related to the supply of potable water to the five NFA communities.

Discussions with other First Nations and communities not covered under the NFA are ongoing to ensure any project-related impacts are mitigated and/or compensated in a fair and equitable manner. To date compensation/mitigation agreements have been reached

with the communities of Thompson, Churchill, South Indian Lake, Pikwitonei, Pukatawagan, Thicket Portage, Ilford, Wabowden, Warren Landing, Cormorant, Pine Bluff, Sagkeeng First Nation, Opaskwayak Cree Nation, Mosakahiken Cree Nation, Moose Lake, Chemawawin First Nation, Easterville and the Grand Rapids First Nation. In March 2000, a settlement agreement was signed with the Kischikamee Treaty Council Inc. resolving impacts caused by the Churchill River Diversion project.

We were able to conclude arrangements relating to adverse effects with communities in the Grand Rapids forebay in the early 1990s. There were some outstanding provincial and corporate issues relating to land which are currently being resolved in a multi-party process including Chemawawin Cree Nation, Mosakahiken Cree Nation, Easterville Community and Moose Lake Community. Agreements-in-principle have been negotiated and the parties are looking forward to concluding settlement agreements.

Discussions relating to general adverse effects from the Nelson River projects with the War Lake First Nation and Fox Lake First Nation and to general adverse effects from the Laurie River projects with the Mathias Colomb Cree Nation and Marcel Colomb Cree Nation are ongoing. Discussions also continue with the Community Councils of Norway House, Nelson House and Cross Lake.

In conjunction with the provincial Department of Culture Heritage and Citizenship, we continue to fund a five-year Churchill River Diversion Archaeology program begun in 1996. The program is intended to identify sites and/or objects of historic significance along the Churchill River Diversion route that may require protection and/or additional investigation. Added benefits from the program include the collection and archival of numerous artifacts and the enhancement of historical information about the area.

To date, we have committed $419 million for compensation and /or mitigation initiatives in northern Manitoba.

Leaving soft footprints

We continue to work with the Manitoba Model Forest on a research study of the Owl Lake Woodland Caribou herd on the east side of Lake Winnipeg. Several animals have been equipped with satellite collars to enable remote tracking and recording of the animal's location over time. Valuable seasonal movement and habitat usage information is being derived from analysis of the collar data and will provide insights on the impact of transmission line rights-of-way in remote habitats.

During 1999-00 our Environmental Partnership Fund provided support to 22 environmental projects. Since its establishment in 1992, over 110 community not-for-profit environmental initiatives or organizations province-wide have benefited from the fund. In addition, Manitoba Hydro continues as a major supporter of the Fort Whyte Centre, which provides a range of environmental and energy use education programs for Winnipeg area schools and visitors.

Through our Forest Enhancement Program, recognition was given to the late Alice Chambers by establishing a scholarship in her name for University of Winnipeg Forest Ecology students. Launched in 1995, the 10-year $3.5 million Forest Enhancement Program recognizes the loss of forest lands impacted by power system improvements. In 1999-00, the program supported 56 community tree planting and forest education projects.

The implementation of the Environmental Management System at all generating stations was completed. We are presently working towards becoming registered to the ISO 14 001 Standard. The Environmental Management System, a requirement under the Canadian Electricity Association's Environmental Commitment and Responsibility Program, focuses on preventive measures to ensure important environmental safeguards are monitored and recorded for auditing purposes.

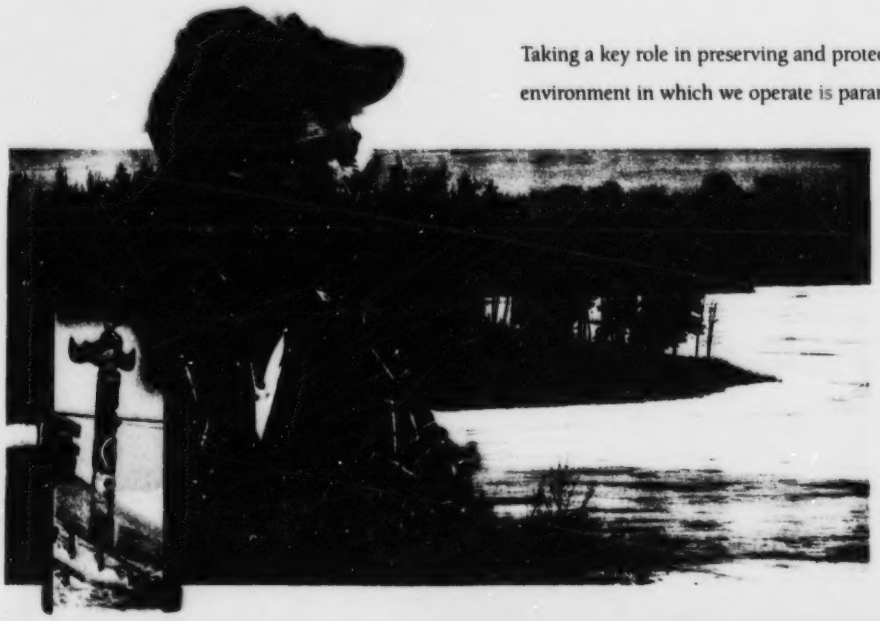
The Spillway Walleye Enhancement Program, was carried out for the third consecutive spring at the Grand Rapids Generating Station. This included flushing the spillway channel, setting of

walleye eggs, monitoring, and counting of walleye coming back into the channel to spawn. The program is part of a six-year $1.3 million project begun in 1997 to re-establish a sustainable spawning walleye population in the Grand Rapids area. The project was implemented cooperatively with the Grand Rapids Fishermen's Co-op and Grand Rapids First Nation.

Reducing global emissions

Canada's climate change Voluntary Challenge & Registry Inc. presented Manitoba Hydro with a Gold Champion award for its 1999 Climate Change Action Plan Update. This title recognizes the highest level of achievement in the organization's champion reporting system. Manitoba Hydro joined the voluntary National Action Program on Climate Change for Managing Greenhouse Gas Emissions at its inception in 1995. The national initiative challenges business and government to take action voluntarily to limit and reduce greenhouse gas emissions, including a commitment to regular reporting.

We are committed to reducing the net greenhouse gas emissions from our electric operations by six per cent (relative to 1990 levels) from 1991 to 2012. To date, we have reduced our cumulative emissions by more than 850 000 tonnes since 1990 — equivalent to an average annual reduction of 106 000 tonnes per year. We are well on our way towards achieving our six per cent target.



Taking a key role in preserving and protecting the environment in which we operate is paramount.

In addition, through our export activities, we contributed to significant reductions in global emissions. For instance, in 1998-99, the export of predominately hydroelectric energy from Manitoba to out-of-province customers who would otherwise derive this energy from generating stations using fossil fuel, avoided the production of 11.24 megatonnes of greenhouse gases. With our acquisition of Centra Gas, our future reporting will comprise Voluntary Challenge & Registry action plans for both our hydro and gas operations.

Community clean-up

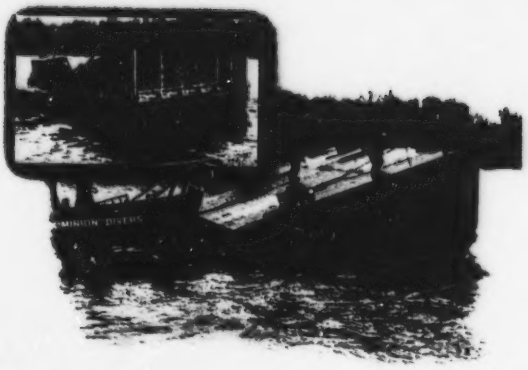
Selkirk Generating Station is a partner with Manitoba Natural Resources, the Federal Government and the municipalities of St. Andrews and St. Clements in a project called Operation Clean-up. This project provides garbage barrels and a regular pick-up service for garbage along the Red River corridor from the southern boundaries of St. Andrews to as far north as Breezy Point.

In Churchill, community residents officially celebrate the completion of the Lower Churchill River Weir project which included a marina and a wildlife viewing tower.

Weir restores levels on Churchill River

A major mitigative project known as the Lower Churchill River Weir project was completed in August 1999. The weir, built primarily of rock and gravel, spans the Churchill River about 10 kilometres south of the Town of Churchill. By backing up river flows, the weir increases water levels and creates a reservoir that increases fish habitat and improves fishing and recreational opportunities. The weir was a major component of the 1997 settlement agreement between Manitoba Hydro and the Town of Churchill to address the adverse effects of the 1970s Churchill River Diversion project.

As a major exporter of hydroelectricity, we contribute significantly to reducing global greenhouse gas emissions.



Protection for aquatic life near the Selkirk Generating Station.

Fish screen installed at Selkirk Generating Station

A fish screen has been installed at the coal-burning Selkirk Generating Station to prevent all but the smallest organisms from entering the station's cooling water system. Installed on the inlet to the station's pumphouse, the fine mesh of the screen has virtually eliminated the destruction of aquatic resources in the region.

New insulating oil protects employees and environment

A new insulating oil product is being adopted for use in the recently purchased HVDC converter transformers. The new oil can be refined from Canadian crude and has very low viscosity at -40°C, which is important for "cold start-up" in winter. The extensive refining process also contributes to the protection of workers and the environment.

Ensuring generation for your future

The average service lifespan of components in a generating station is between 40 to 100 years. Each year we ensure each of our hydraulic facilities continue to operate efficiently and reliably for many more years to come through extensive preventive maintenance and rehabilitation programs. Ensuring that all operate at a highly efficient level is key to maintaining overall service quality and customer satisfaction.

Manitoba Hydro has a Supply Efficiency Improvement Program to identify, evaluate and implement upgrades to its existing generation, transmission, and distribution facilities in order to produce more electricity or to reduce electricity losses on the power system. It covers a wide range of activities and initiatives designed to economically maximize the capacity and energy delivered by the Corporation's facilities. One example of this involves replacing the generator propellers or

runners in the older hydraulic generating stations with modern runners that are more efficient. Over the past 15 years, these projects have yielded a capacity and energy improvement of 162 MW and 480 GW.h. This is enough electricity to supply a community the size of Brandon plus its surrounding districts.

During 1999-00, electrical components of the units at the Kettle and Long Spruce generating stations were upgraded. At the Grand Rapids Generating Station, Unit 3 was placed back in service in November 1999 following a major overhaul involving its electrical and mechanical components.

Newly expanded operations centre near Great Falls.

Eleven of 14 generating stations were audited this year along with our three converter stations under a new Workplace Structural Safety Audit program. The program is designed so that generating station personnel can define, identify, and prioritize workplace safety issues from a structural engineering perspective using current codes, regulations and standards.

The Winnipeg River Operating Centre located near the Great Falls Generating Station was opened in May 1999, consolidating the maintenance and operating activities for the four Manitoba Hydro plants on the Winnipeg River.

Water conditions normal

With the return to more normal water conditions on the Winnipeg River in 1999-00 from the drought that occurred during the summer and fall of the previous year, Manitoba's total system generation achieved good year-end results. Manitoba hydraulic generation was 29.5 billion kilowatt-hours, up 1.4 per cent from the 29.1 billion kilowatt-hours generated in 1998-99.

Four generating stations — Jenpeg and Kelsey on the Nelson River and Great Falls and Pine Falls on the Winnipeg River — set new production records in 1999-00. For Jenpeg, it was the second year in a row.

For the fifth consecutive year, export revenues set a new record of $376 million, up 15 per cent over last year. The continued increase in revenue was achieved due to favourable market conditions in spite of a 4.3 per cent decline in sales volumes.

Brandon combustion turbine announced

Manitoba Hydro is initiating the development of a $177 million natural gas fuelled generation project in Brandon. The in-service date of 2002 is subject to the receipt of all necessary environmental approvals and licenses. The plant will have a capacity of up to 260 MW. A combustion turbine plant provides a number of benefits such as allowing Manitoba Hydro to expand its share of the export market and provide additional reliability to the province's electricity supply. The benefits associated with the combustion turbine also have global environmental impacts which result from using gas, in combination with substantial hydro generation, to offset coal use in other markets. This marks the first major generation to be added to our system since the Limestone Generating Station was completed in 1992.

Exploring new technologies in generation

We continue to evaluate small-scale electric generation for future consideration in various applications in the event they become economically competitive to our hydraulic resource generation options. During 1999-00, we participated in a collaborative project with Centra Gas, Natural Resources Canada, the City of Winnipeg, and Manitoba Conservation/Sustainable Development Innovations Fund to demonstrate the use of natural gas fuelled microturbines to generate electricity and at the same time, destroy noxious odours for the City of Winnipeg's South End Pollution Control Centre. Other possibilities in Manitoba incorporate biomass resources that are primarily aimed at solving environmental concerns associated with municipal solid waste landfill sites.

credit combustion turbine: ABB ALSTOM POWER

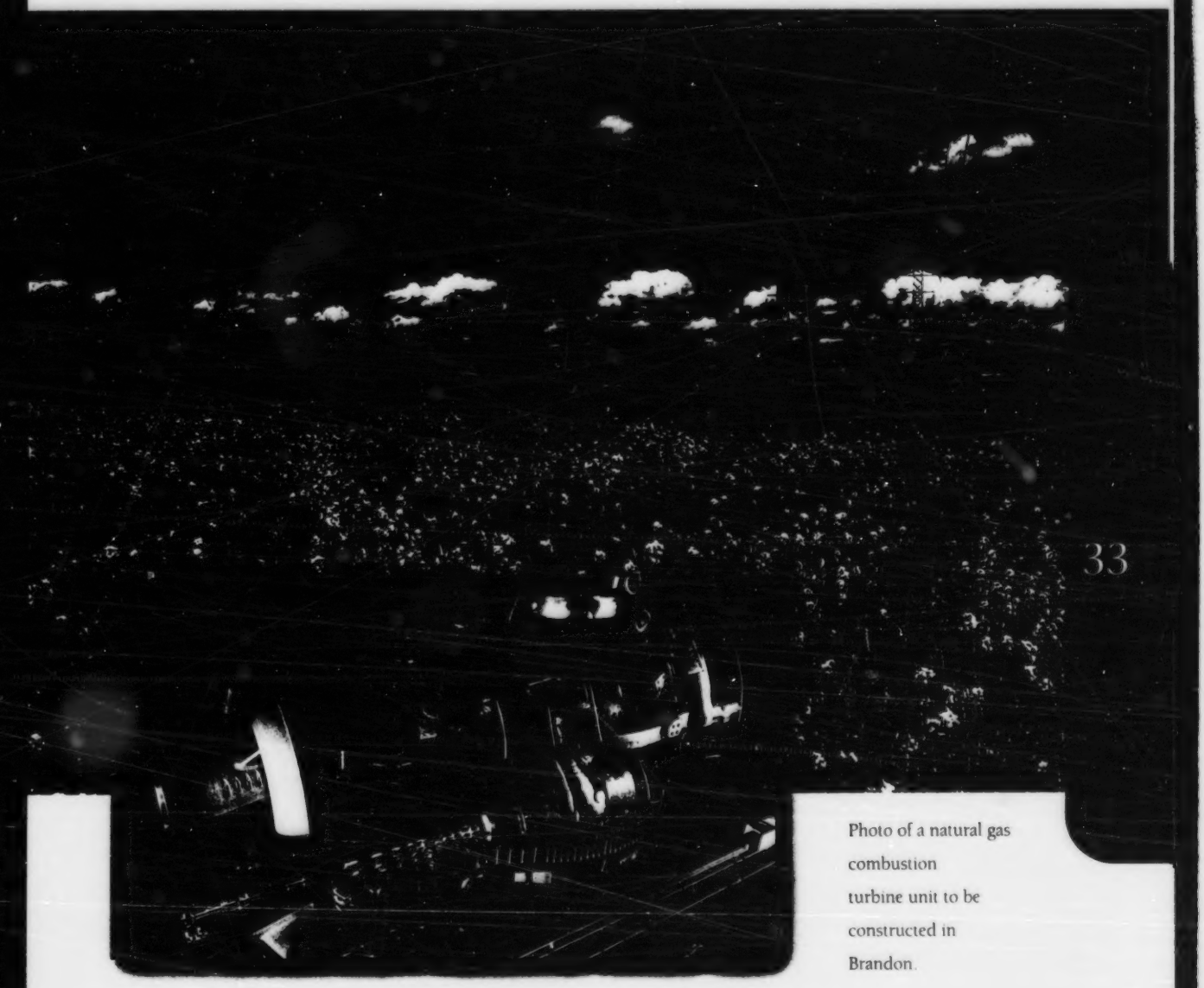
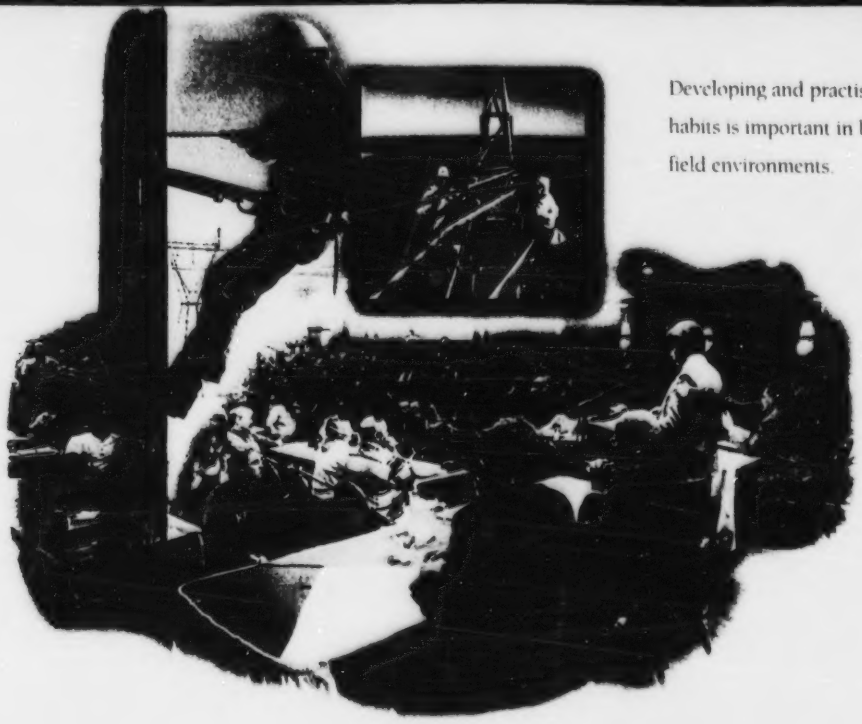


Photo of a natural gas combustion turbine unit to be constructed in Brandon.



Developing and practising safe work habits is important in both office and field environments.

A safer place to work

In the past year, we continued our efforts to significantly improve employee safety. One initiative delivered to field staff in the fall of 1999 is Job Safety Planning. The program identifies hazards to ensure that the proper protection is in place to eliminate high-risk accidents.

An improvement to the delivery of workplace health and safety training was Symposium 2000 held in February. Over a two day period, employees were able to access resources from both within and outside the Corporation. In addition, they were able to select sessions that were most relevant to safety in their workplace.

In 1999 a new facility for the repair and testing of all fibreglass reinforced plastic tools used on the system was developed in Winnipeg following an electrical accident involving the use of a fibreglass stick while doing live line work. There are presently over 3 500 fibreglass tools used by Manitoba Hydro. Tools classified as live line tools will be tested annually at the facility. Other specialty fibreglass tools will be tested every two years.

Inset photo credit: Roger Currie, Customer Service Operations.

At Manitoba Hydro the accident severity rate was 28.4 days lost per hundred workers as compared to 180.06 in 1998. Disabling accident frequency increased slightly from 1.656 accidents per hundred workers in 1998 to 1.698 in 1999. The frequency of recordable vehicle accidents per million kilometres driven was 2.73, which was an increase from 2.32 in 1998.

At Centra Gas, a new Health and Safety program was implemented in the fall of 1996 and employees achieved their best safety record ever in 1999-00. Lost time injuries have fallen by 52 per cent and the number of days lost due to workplace injuries have declined by 76 per cent since the inception of the new program. Also, Centra Gas Distribution Operations reached their "500 000 hours without a Lost-Time Injury" milestone in 1999, a first for the company. Gas Distribution Operations is responsible to keep the gas distribution system functional in all weather conditions.

Public education on safety

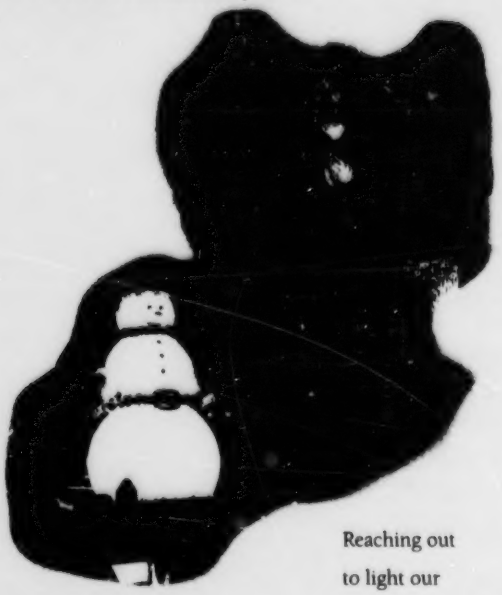
A key aspect of our relationship with the public is the safe use of our product. We continued a successful, jointly sponsored safety billboard program with Local 2034, International Brotherhood of Electrical Workers that targeted our high-risk energy users such as our agricultural customers and contractors.

Our "Call before you Dig" program expanded in 1999-00 to include broad representation from companies with similar concerns of public safety with respect to buried infrastructure. A pocket planner and excavation guide was distributed to municipalities, contractors and excavators.

We continue to work with the educational community to bring awareness of our safety information resources and conservation material for use in the classroom. Our Web site was enhanced this year by the addition of another educational resource for both teachers and customers called the Learning Zone. More than 500 pages of educational material are available at this site which is divided into three zones: the Electrical Universe, the Schoolhouse and the Kid's Zone.

Both Centra Gas and Manitoba Hydro have joined forces with the Fire Commissioner's Office and the Fire Fighters Burn Fund to support the Safety Baby program, which supplies a household safety kit to new mothers.

Supporting our community



Reaching out to light our community at the Power Smart Festival of Lights Parade in Winnipeg.

Manitoba Hydro has a proud tradition of community commitment building on a solid foundation of public safety, community leadership, local business support, environmental responsibility, aboriginal ventures and employment equity. We believe in the importance of giving something back to our neighbourhood, our community and our province.

As supporter of the 13th Pan American Games, Manitoba Hydro and Centra Gas were proud to "light" and "ignite" the spirit of the games throughout the host communities in Manitoba. In addition to supporting this major sporting event, we lent our support to the provincial junior curling championships held in The Pas in February 2000 under our Power Smart brand. Other community events supported during the year include the First Nations Winter Celebration, the Royal Manitoba Winter Fair, the RWB Satellite Program, the MTC Provincial Tour, the Portage la Prairie Island of Lights, the Festival of Lights Parade, and the Super Cities Walk for Multiple Sclerosis.

Each year many groups and individuals take the opportunity to tour our generating and converter stations or to pursue recreational activities near our facilities along Manitoba's waterways. To ensure the public's safety and enjoyment we have put in place various facilities for their use over the years. During the fiscal year, a public scenic viewing area at the Long Spruce Generating Station was completed and a park developed near the Kettle Generating Station. The boat launch downstream of Kettle has also been refurbished.

Human resources strengthen with gas acquisition

The delivery of a consistent and reliable energy supply year round to our customers is highly dependent on the quality, innovation, and skill of our employees. We are excited about the additional talent and knowledge that comes to us with the acquisition of the Centra Gas workforce. With this strong diversified employee base, we will better achieve our vision to become a world-class energy utility.

Considerable time and effort continues to be invested on the Centra Gas integration to help ensure a smooth transition of employees and business operations. We recognize the importance of the human element on mergers and acquisitions and are endeavouring to treat all employees in a fair and sensitive manner.

Hydro's President and CEO Bob Brennan meets Centra Gas staff at the Operations and Fleet Maintenance Centre in Winnipeg.

During 1999-00, several initiatives were undertaken with the joint involvement and contribution of the bargaining units that represent Manitoba Hydro employees. Those initiatives examined include the development of an improved performance management system, a streamlined job evaluation system, a complete Aboriginal employment review, and the establishment of competency development and behavioural based interviewing techniques.

Collective agreements with the Canadian Union of Public Employees (CUPE), Local 998 and the Association of Manitoba Hydro Staff and Supervisory Employees expired at the end of March. Contract renewal negotiations are underway with these two bargaining units as well as the International Brotherhood of Electrical Workers (IBEW), Local 2034, whose collective agreement expires in May 2000. CUPE and IBEW have formed a coalition for the negotiation of wages and other common benefits and provisions. At Centra Gas, the Communications, Energy and Paperworkers Union, Local 681 (Winnipeg) and Local 681 (Rural) collective agreements expire in February 2003.

Our workforce continues to become increasingly diverse. At year-end, with the addition of the Centra Gas workforce, there were 1 071 women, 273 Aboriginals, 120 persons with disabilities and 127 members of visible minority groups in the Corporation's employ. During the year, we increased our participation at career and employment presentations to members of First Nations and other Aboriginal groups and communities, who have increasingly become a larger component of the labour pool. We are also actively pursuing training and employment partnerships with various Aboriginal groups.

Employee group achieves quality excellence

Centra Gas became the first utility and/or manufacturer in Canada to obtain accreditation of its meter shop for the verification and re-verification of their largest meters in the system —rotary and turbine gas meters. Accreditation involves establishing a quality assurance program that meets the requirements of the federal agency, Measurement Canada. Manitoba Hydro also became the first utility under Measurement Canada requirements to gain accreditation to seal electric meters for verification, re-verification, and compliance programs.

Innovation out of research

Rapidly changing and increasingly complex technology continues to drive our commitment to support emerging new research in science and technology that will enhance our position to be a world-class energy provider.

Notable projects include our continuing support of work at the Experimental Lakes near Kenora, Ontario. On one of the lakes, a small dam has been constructed to study the dynamics of methyl mercury in flooded ecosystems. The work is leading edge and is contributing to how hydroelectric utilities will manage forebay areas with respect to the environment.

With the encouragement of its sponsors, the Manitoba HVDC Research Centre has become a subsidiary of Manitoba Hydro. This facility, recognized world-wide, performs leading-edge research for the power industry. A study that has been ongoing since 1996 on anomalous flashovers on power lines, which leads to power interruptions, has captured rare video footage of a flashover. The footage will aid researchers in determining what causes this unexplained phenomenon so that mitigative measures can be taken. The Centre has also introduced an exclusive power system analysis tool for the personal computer and is actively marketing this software world-wide as PSCAD/EMTDC.

Research work which we have participated in has also led to the economic development of the related products. Three such associations, APT Power Technologies, McLeod Harvester Inc. and Meridium Power are now moving to commercialization of their products. An interim license was also awarded to a local company for the initial manufacture and sale of technology that has been developed by Centra Gas to remotely monitor cathodic protection levels on metal piping networks. At year-end, discussions were in progress concerning permanent licensing arrangements for this and related products that are believed to have international market potential.

In conjunction with the Canadian Electricity Association's research groups, Manitoba Hydro has begun a formal association with the Electric Power Research Institute (EPRI) of Palo Alto, California to enhance our knowledge of power and fuel markets in North America.

We continue to have a strong association with the universities in Manitoba, engaging in collaborative research that benefits all organizations. Within the engineering faculty, we support a variety of laboratories and research study areas that have direct bearing on our day-to-day operations. In addition, all university projects involve related Manitoba Hydro staff thereby providing the opportunity for a highly effective two way learning process.

Meridium Power Inc.

During its first full year of operation, Manitoba Hydro's subsidiary concentrated on laying a strong foundation for its sales and marketing activities. A Web site was established. The subsidiary distributes a family of motive power and power protection products based on Written-Pole® technology. Product development efforts have included an enhanced single-phase motor representing a significant step forward, as it is smaller, lighter, more efficient and less costly to produce.

Manitoba Hydro International

In its first full year as a wholly-owned subsidiary of Manitoba Hydro, Manitoba Hydro International Ltd. (MHI) continued to build on the success of Manitoba Hydro's experience over the past 14 years in providing expert technical and management consulting services both in Canada and abroad. Marketing and business development efforts were enhanced during the year and a Web site developed to link potential clients to our extensive engineering, environmental, and maintenance and operations expertise.

In addition to providing financial planning and financial modelling expertise to an Egyptian utility, our employee takes an opportunity to do some sightseeing.

Assignments in 1999-00 included projects in Australia, Canada, Central America, the People's Republic of China, Egypt, Germany, India, Kazakhstan, Lesotho, Romania, Russia, South Africa, St. Lucia, United Arab Emirates, USA and Zimbabwe.

An assignment in place since 1994 to provide the consulting services of an operations and maintenance specialist for the Lesotho Highlands Water Project was recently extended for another two years. MHI is also working with the Canadian International Development Agency (CIDA) in providing transmission-planning expertise for Kazakhstan.

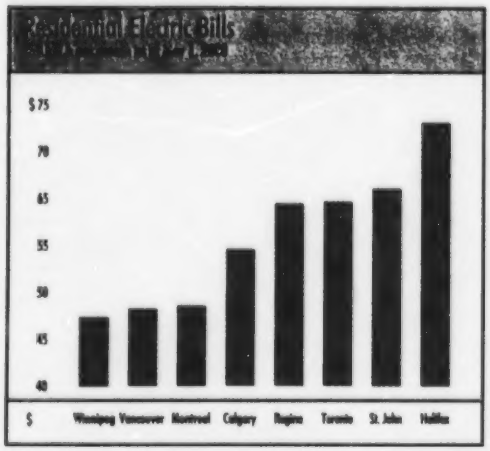
MHI is continuing to provide electric utility restructuring and process improvement assistance to the state utility in Kerala, India.

We have been providing utility services to more than 70 client organizations in over 40 countries. We are proud of our long-standing accomplishments in successfully delivering training and technology transfer programs to utilities around the world.

Management's Discussion and Analysis

Financial Overview

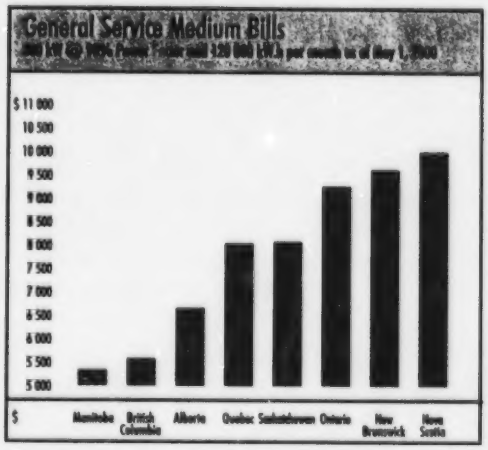
Manitoba Hydro's consolidated net income for the year ended March 31, 2000 was $152 million, the highest level of earnings in the Corporation's history. Compared to 1998-99, net income was up by $52 million. The increase in net income was largely attributable to a $50 million increase in revenues from the sale of electricity in export markets where prices rose 21% from the prior year. The higher export prices were largely a reflection of Manitoba Hydro's increased access to the competitive United States marketplace for electricity. In addition, thermal fuel and power purchases were down $26 million or 44% from last year mainly due to lower energy requirements in the domestic market related to mild weather conditions experienced during the year.

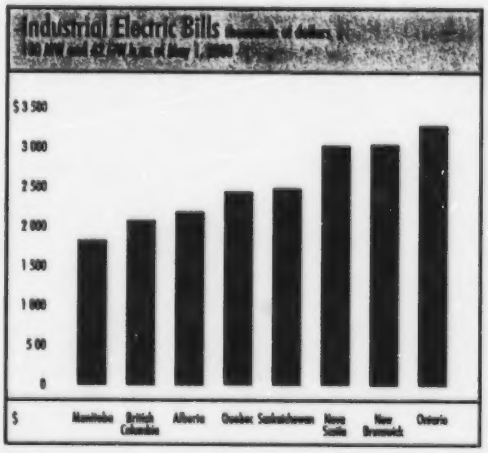


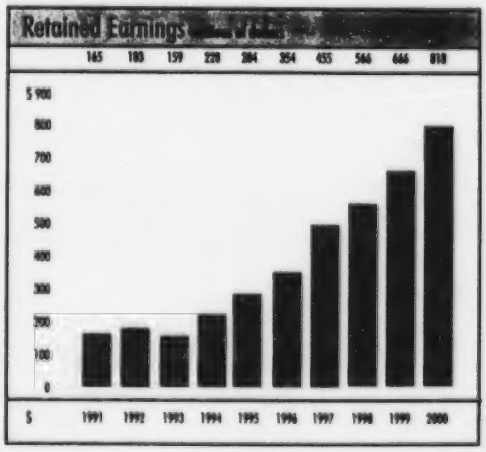
Record sales in the export market have allowed Manitoba Hydro to maintain its status of having the lowest domestic electricity rates of any major utility in North America. Large industrial customers of Manitoba Hydro have not had an increase to their electricity rates since April 1992, while residential and small commercial customers have not had their electricity rates changed since April 1997. Again in the year 2000, there will be no increase to electricity rates in Manitoba.

Consolidated net income includes the results and operations of Centra Gas Manitoba Inc. (Centra Gas) which was acquired by the Corporation on July 30, 1999. Centra Gas is the principal distributor of natural gas in the province of Manitoba with approximately 246 000 customers in the residential, commercial and industrial sectors. All of the issued and outstanding common shares of Centra Gas were acquired for a purchase price of $242 million. The acquisition of Centra Gas allows the Corporation to be a "one-stop energy company" for its customers. It also allows Manitoba Hydro to take advantage of synergies of at least $12 million per year by combining the operations of the utilities. Centra Gas' contribution to consolidated net income, after application of the costs and amortization of taxes associated with the acquisition, amounted to $4 million for the eight-month period from the date of acquisition.

The 1999-00 consolidated net income of $152 million increased retained earnings from $666 million at March 31, 1999 to $818 million at March 31, 2000.







Electrical Operations

REVENUES

Total revenues from the electricity segment exceeded the one billion dollar mark for the fourth consecutive year in 1999-00. Of the total revenue, 62% was derived from retail power sales within the province, 34% from the export power market and 4% as a result of the cost-sharing agreement with Winnipeg Hydro. In total, revenues rose by 4% over the previous year.

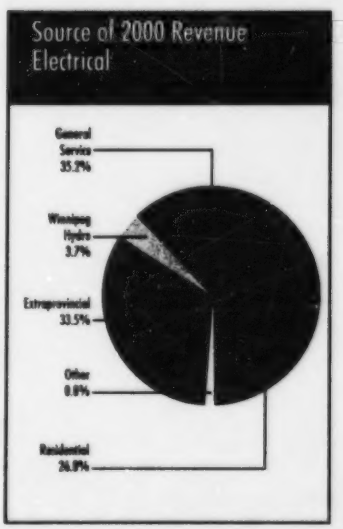
MANITOBA POWER SALES

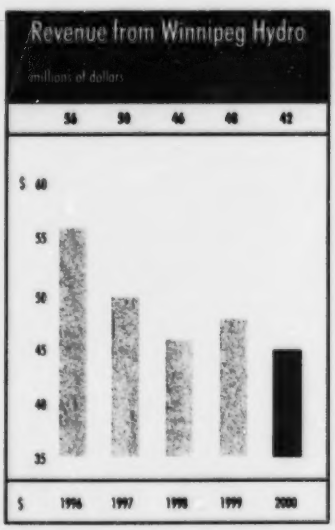
Manitoba revenues declined to $747 million from $756 million, a decrease of $9 million or 1% from the previous year. Electricity consumption in Manitoba was 19.1 billion kilowatt-hours, 0.3 billion kilowatt-hours less than the 19.4 billion kilowatt-hours consumed in the 1998-99 fiscal year. The decrease was due to lower energy requirements in the general service sector and decreased sales to Winnipeg Hydro.

Revenue from sales to residential customers for 1999-00 was consistent with the previous year at $300 million. The number of residential customers increased by 2 908 during the year, and totalled 352 618 at March 31, 2000.

Revenue from general service customers, comprised of the commercial and industrial sector decreased by $5 million to $395 million for 1999-00. The total number of general service customers increased by 252 to 49 405 at March 31, 2000.

Revenue from Winnipeg Hydro amounted to $42 million, a decrease of $6 million from 1998-99 as a result of the sharing of higher extraprovincial revenues and lower purchases in accordance with a cost-sharing agreement between the two utilities. The cost-sharing agreement expired on March 31, 2000 and a new power supply arrangement is in the process of being negotiated.





EXTRAPROVINCIAL POWER SALES

Revenues from extraprovincial power sales increased to a record amount of $376 million, $50 million higher than 1998-99. Energy sold outside Manitoba was 10.9 billion kilowatt-hours in 1999-00, 0.5 billion kilowatt-hours less than in 1998-99. The financial impact of reduced energy sales was more than offset by the increase in the average return per kilowatt-hour. In 1999-00, the average return was 3.45 cents per kilowatt-hour, representing an increase of 0.59 cents per kilowatt-hour or 21% over the previous year. Of the total extraprovincial revenue, $286 million or 76% was derived from the U.S. market, $61 million or 16% from Ontario and $29 million or 8% from Saskatchewan.

EXPENSES

Total expenses of the electricity segment amounted to $975 million, a decrease of $7 million or 1% from the previous fiscal year. The decrease in expenses was largely due to a $26 million decrease in fuel and power purchases which were higher in 1998-99 to compensate for lower water levels. In addition, there was a $9 million decrease in finance expense due to a reduction in the average cost of financing and to gains realized on the sale of sinking fund investments. These decreases were partially offset by an increase in depreciation expense of $17 million relating to assets being placed in service and additional operating expenses of $8 million.

OPERATING AND ADMINISTRATIVE EXPENSES

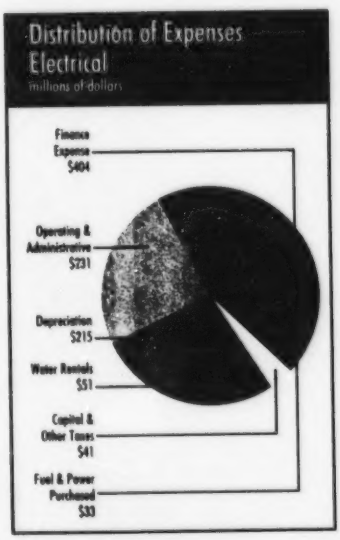
Operating and administrative expenses include the labour, material and overhead costs associated with operating, maintaining and administering the facilities of the Corporation. In 1999-00, operating and administrative expenses amounted to $231 million, an increase of 4% or $8 million over 1998-99. Increased costs were associated with additional maintenance on the hydraulic generation, transmission and distribution systems of the Corporation.

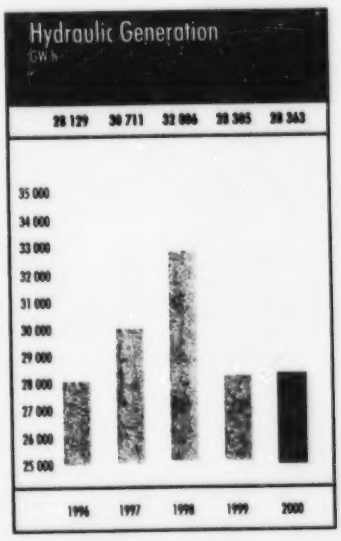
DEPRECIATION

Depreciation expense totalled $215 million, an increase of $17 million or 9% over 1998-99. The increase was attributable to capital additions to the generation, transmission and distribution systems of the Corporation.

WATER RENTALS

Water rental costs are incurred for the use of water resources by Manitoba Hydro in the operation of its hydroelectric generating stations. Water rentals of $51 million remained unchanged from the previous year, reflecting hydraulic generation of 28.4 billion kilowatt-hours in 1999-00 compared to 28.3 billion kilowatt-hours in 1998-99.





FUEL AND POWER PURCHASED

Fuel and power purchased costs amounted to $33 million, a decrease of $26 million from the previous year due to better water flow conditions in 1999-00. The decrease was comprised of lower power purchases of $21 million and decreased thermal generation of $5 million. In addition, market conditions presented minimal economic opportunities to purchase additional power for resale. In 1999-00, domestic and export load was met with hydraulic generation and minimal purchases. Power purchases were 1.0 billion kilowatt-hours compared to 1.9 billion kilowatt-hours in the previous year. Thermal generation for the year was 0.7 billion kilowatt-hours, a decrease of 0.2 billion kilowatt-hours from 1998-99.

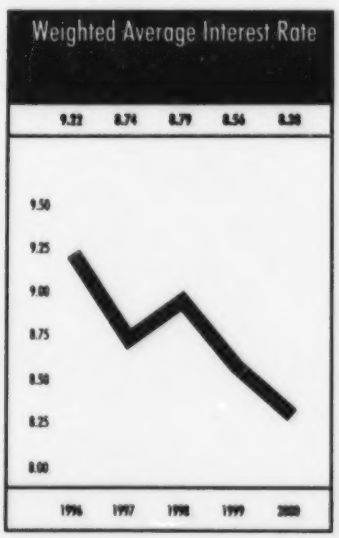
FINANCE EXPENSE

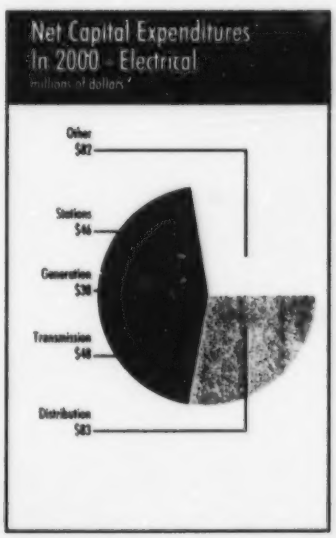
Finance expense decreased $9 million to $404 million in 1999-00. The decrease was the net result of a reduction in the weighted average interest rate from 8.56% to 8.38%, a $3 million gain on sales of sinking fund investments and increased borrowing requirements.

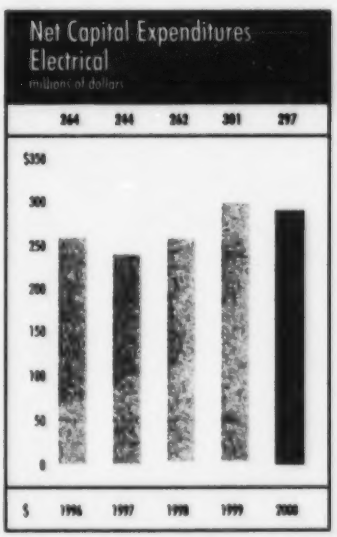
CAPITAL ASSETS

Expenditures for capital construction totalled $297 million in 1999-00 compared to $301 million during the previous fiscal year. Capital expenditures in 1999-00 included $38 million for new generation system rehabilitation, upgrade and protection projects. Generation expenditures also included $14 million for a new natural gas-fired combustion turbine plant being installed at Brandon, Manitoba. The combustion turbine plant is expected to provide a number of benefits. The most significant is that the combustion turbine will allow Manitoba Hydro to sell higher priced firm energy on the export market — energy that was previously sold on an interruptible basis. In addition to the financial benefits, the combustion turbine will provide extra system reliability and security to the western part of the province.

The Corporation expended $48 million for new transmission line and upgrade projects including the new Dorsey - Neepawa - Cornwallis 230 kV line. Substation additions and upgrades were $46 million and distribution system additions and modifications were $83 million to meet the service requirements of customers throughout the province. The remaining capital expenditures were for replacements of equipment and facilities.







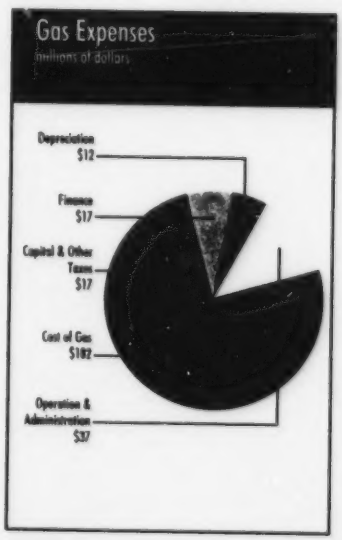
Natural Gas Operations

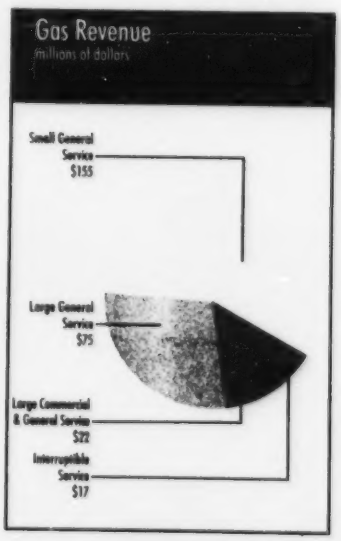
The gas segment consists of financial results of the Corporation's subsidiary, Centra Gas Manitoba Inc. (Centra Gas), for the eight-month period ended March 31, 2000.

The gas segment contribution to consolidated net income was $4 million for the eight-month period. Revenue during the period was $269 million while total expenses amounted to $265 million, including $182 million for cost of gas sold. Gas volumes delivered were 57 billion cubic feet (Bcf) compared to normal deliveries of 62 Bcf, as a result of warmer than normal weather. Customer additions of 4 895 for the period increased the customer base to a total of 245 761 at year-end.

Gross capital expenditures for the eight-month period were $15 million of which $7 million was funded through customer contributions. The capital expenditure program reflects the continuing growth in new business and rural expansion initiatives, system betterment and other expenditures required to meet the needs of new and existing customers.

Centra Gas' main supply of natural gas, totalling 23.1 Bcf, was purchased under its TransCanada Gas Services (TCGS) long-term contract. The monthly pricing mechanism was linked to Alberta pricing with 70% of the price based on the AECO hub

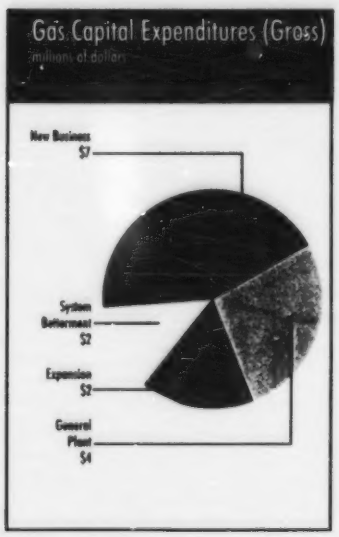


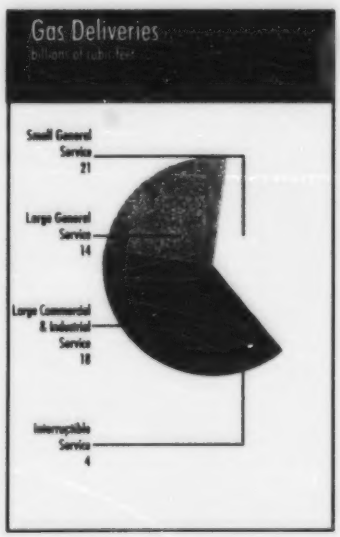


prices plus the NOVA AECO to Empress toll and 30% of the price indexed to Empress hub pricing. Supplies for the direct purchase market were priced at the monthly Buy/Sell reference price. Spot gas, totalling 6.2 Bcf, was purchased under day-to-day pricing arrangements based on the daily Alberta pricing index.

Centra Gas used financial instruments to minimize the potential impacts of severe volatility of natural gas prices. During the eight-month period, Centra Gas placed derivative positions at a net cost of $2 million. In addition, Centra Gas has purchased caps for the gas months of April and June through September.

Natural gas prices continue to be volatile. Reflecting this volatility, it was necessary for Centra Gas to increase gas rates to customers by an average of 4% effective December 1, 1999. This follows an average 6% gas price decrease effective July 1, 1999. Recent surges in natural gas commodity prices in Alberta, where Centra Gas obtains the majority of its supply, will translate into further gas rate increases to customers in Manitoba. Centra Gas has taken steps to mitigate the effects of natural gas price volatility by placing derivative positions on natural gas purchases and by introducing a new rate setting methodology for Primary Gas whereby rate changes will be introduced on a quarterly basis. It is expected that these actions will result in rate changes being less volatile than would otherwise be the case.





Consolidated Operations

FINANCING

In 1999-00, proceeds received from new financing arranged by the Corporation amounted to $943 million primarily through the issuance of Provincial Advances amounting to $898 million. Proceeds were mainly used to finance the acquisition of Centra Gas, repay notes and refinance maturing debt. In addition, the Corporation completed financing totalling $45 million in connection with mitigation settlements.

FINANCIAL TARGETS

The Corporation has three primary financial targets to enhance its financial strength, to contribute to rate stability and predictability, and to protect the Corporation and its customers from a variety of other risks. The financial targets are:

Interest Coverage

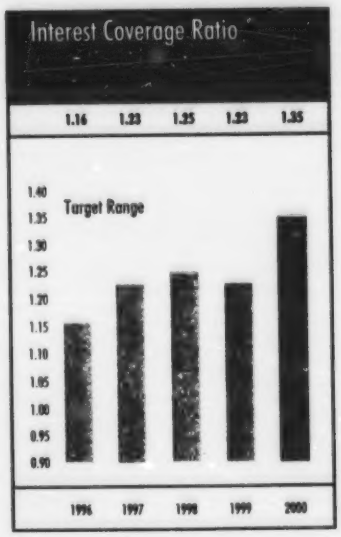
Maintain an annual gross interest coverage ratio in the range of 1.20 to 1.35. The interest coverage ratio indicates the extent to which net income is sufficient to pay gross interest on debt. The Corporation's interest coverage ratio improved from 1.23 in 1998-99 to 1.35 in 1999-00 as a result of the significant growth in earnings.

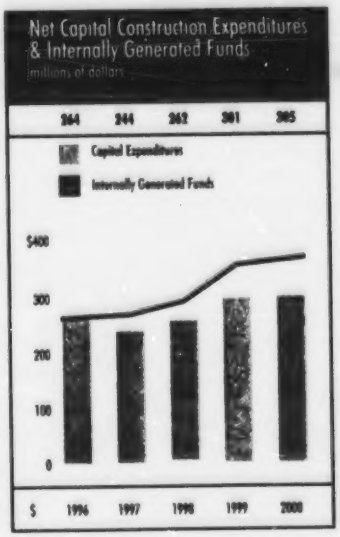
Cash Flow/Capital Expenditures

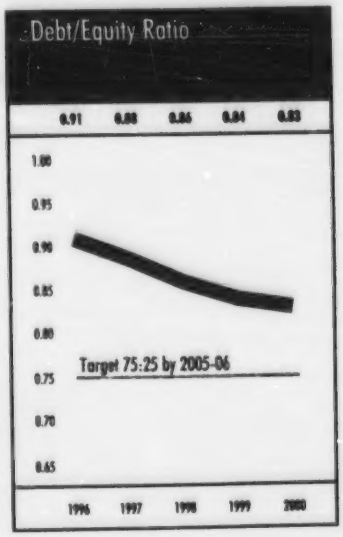
Fund all capital construction requirements from internal sources (except during periods when major generation and/or major transmission facilities are being added to the system). In 1999-00, internally generated funds exceeded net capital construction expenditures by $69 million resulting in a cash flow/capital expenditure ratio of 123% in 1999-00 compared to 122% in 1998-99.

Debt/Equity

Achieve and maintain a minimum debt/equity ratio of 75:25 by 2005-06. The debt/equity ratio provides an indication of the relative percentage of assets financed through debt versus equity. The Corporation's debt/ equity ratio improved from 84:16 at March 31, 1999 to 83:17 at March 31, 2000.







OUTLOOK

Strong export markets, good water conditions and control over expenditures have allowed Manitoba Hydro to significantly strengthen its financial position over the last several years. The achievement of financial targets for earnings, interest coverage and funding of capital expenditures is providing the Corporation with the ability to take advantage of the changes occurring in the North American energy industry. As new challenges and opportunities are presented the Corporation will continue to pursue those that increase revenues from electricity exports or energy related businesses that enhance and expand the organization. The acquisition of Centra Gas is representative of how the Corporation is dealing with the changes confronting every energy related utility in North America.

Although domestic electricity load decreased from the previous year, mainly due to warmer than normal weather, the Corporation was able to obtain exceptional prices for power sold on the export market. The Corporation's membership in the Mid-Area Continent Power Pool (MAPP) has provided the Corporation with new export opportunities and it is expected to continue to provide us with the possibility to expand our market inside the U.S. The recently announced combustion turbine generator in Brandon will allow Manitoba Hydro to maximize the revenues available from the existing hydraulic generating stations by converting interruptible export sales to higher priced firm sales. Domestic energy consumption is expected to return to more normal levels and will increase over the foreseeable future at an anticipated rate of 1.8% annually over the next ten years. Manitoba Hydro will service this growth and our existing firm export sales contracts by upgrading existing facilities, pursuing Power Smart initiatives and when water conditions dictate, importing electricity from neighbouring utilities.

Supply side opportunities which are developing within the energy industry will determine, in the short and long-term, the timing of new major generation. As a result of the economic expansion in the United States a growing demand for electricity has occurred. Within the MAPP region the increase in forecasted demand highlights the need for new sources of supply, most of which have yet to be planned. This situation provides the Corporation with a vast amount of opportunity to pursue projects that fulfill both our economic and financial goals. Hydro-based resources will be the supply option of choice when considering such factors as price, reliability and impact on the environment. The Corporation will consider partnership arrangements in new generation projects where the benefits will accrue to the people of Manitoba.

System reliability and safety will continue to be areas where the Corporation will focus its efforts while adhering to other established operating targets. One of these targets is the funding of capital expenditures through internally generated funds. Over the next ten years all forecasted capital expenditures, with the exception of major new generation and transmission projects, are projected to be funded by internally generated funds. This capital spending target will ensure that Manitobans continue to benefit from one of the most safe and reliable energy systems in North America.

Manitoba Hydro's rate structure is among the lowest in North America and the Corporation is determined to maintain this rate positioning. While controlling costs and increasing export revenues, the Corporation has been able to either limit the amount or eliminate the requirement for rate increases. Through these actions, future rate increases over the next ten years will be well below the projected inflation rates. While maintaining this rate strategy, the Corporation is also determined to explore various rate options that will continue to meet the changing needs of our customers.

The acquisition of Centra Gas during the past year is another strategy aimed at meeting customers' needs for safe, reliable, low-cost energy. The integration of the two companies is resulting in cost savings and customer service benefits for all of our customers. Similar to electricity, moderate growth is projected in both natural gas sales and the number of new gas customers. Expansion into new franchise areas will be pursued in cases where it would be economic for new customers and not detrimental to existing customers. Capital expenditures in the gas business are projected to meet this growth and the need to replace or improve existing facilities. The acquisition of Centra Gas by Manitoba Hydro has resulted in a stronger organization that is better equipped to meet the energy needs of Manitoba customers while at the same time improving the Corporation's ability to face the challenges of the future.

Management Report

The accompanying consolidated financial statements are the responsibility of management and have been prepared in accordance with accounting principles generally accepted in Canada, applied on a basis consistent with that of the preceding year. In management's opinion the consolidated financial statements have been properly prepared within reasonable limits of materiality, incorporating management's best judgement regarding all necessary estimates and all other data available up to June 2, 2000. The financial information presented elsewhere in the Annual Report is consistent with that in the consolidated financial statements.

Management maintains internal controls to provide reasonable assurance that the assets of the Corporation are properly safeguarded and that the financial information is reliable, timely and accurate. An internal audit function independently evaluates the effectiveness of these internal controls on an ongoing basis and reports its findings to management and to the Audit Committee of the Board.

The responsibility of the external auditors, KPMG LLP, is to express an independent, professional opinion on whether the consolidated financial statements are fairly presented in accordance with generally accepted accounting principles. The Auditors' Report outlines the scope of their examination and their opinion.

The Audit Committee of the Board is composed of three members of the Manitoba Hydro-Electric Board. The Audit Committee of the Board meets with representatives of the external auditors, the internal auditors and management to satisfy itself that each group has properly discharged its respective responsibility and to review the consolidated financial statements before recommending approval by the Board. The Board has reviewed the Annual Report in advance of its release and has approved its content and authorized its publication.

On behalf of Management:

R.B. Brennan, FCA
President and
Chief Executive Officer

V.A. Warden, CMA
Vice-President,
Finance & Administration
and Chief Financial Officer

Auditors' report

To The Manitoba Hydro-Electric Board

We have audited the consolidated balance sheet of The Manitoba Hydro-Electric Board as at March 31, 2000 and the consolidated statements of income and retained earnings and cash flows for the year then ended. These consolidated financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the Corporation as at March 31, 2000 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

KPMG LLP

Chartered Accountants
Winnipeg, Canada
June 2, 2000

Consolidated Statement of Income and Retained Earnings

For the year ended March 31 (millions of dollars)	2000 (Note 18)	1999
Revenues		
Electric - Manitoba	$ 747	$ 756
- Extraprovincial (Note 3)	376	326
Gas	269	–
	1 392	1 082
Expenses		
Operating and administrative	268	223
Depreciation	227	198
Water rentals (Note 4)	51	51
Fuel and power purchased	33	59
Capital and other taxes	58	38
Cost of gas sold	182	–
	819	569
Income before finance expense	573	513
Finance expense (Note 5)	421	413
Net Income	152	100
Retained Earnings, Beginning of Year	666	566
Retained Earnings, End of Year	$ 818	$ 666

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Balance Sheet

As at March 31 (millions of dollars)	2000 (Note 18)	1999
Assets		
Capital Assets (Note 6)		
In service	$ 8 438	$ 7 815
Less accumulated depreciation	2 391	2 217
	6 047	5 598
Construction in progress	188	176
	6 235	5 774
Current Assets		
Bank balances and temporary investments (Note 12)	15	57
Accounts receivable, accrued revenue and other assets	232	165
Interest receivable	20	14
Materials and supplies, at average cost	77	63
	344	299
Other Assets		
Sinking fund investments (Note 7)	1 282	1 111
Pension assets (Note 8)	425	369
Deferred debt costs (Note 9)	121	130
Other deferred assets (Note 10)	285	183
	2 113	1 793
	$ 8 692	$ 7 866

Approved on behalf of the Board:

Victor H. Schroeder, Q.C.
Chairman of the Board

Charles E. Curtis,
Chairman of the Audit Committee

(millions of dollars)	2000 (Note 18)	1999
Liabilities and Retained Earnings		
Long-Term Debt (Note 11)		
Long-term debt net of sinking fund	$ 5 329	$ 4 772
Sinking fund	1 282	1 111
	6 611	5 883
Current Liabilities		
Accounts payable and accrued liabilities	160	106
Notes payable	–	241
Accrued interest	106	100
Current portion of long-term debt	159	–
	425	447
Other Liabilities		
Deferred liabilities and credits (Note 13)	205	234
Pension liability (Note 8)	358	369
	563	603
Contributions in Aid of Construction	275	267
Retained Earnings	818	666
	$ 8 692	$ 7 866

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statement of Cash Flows

For the year ended March 31 (millions of dollars)	2000 (Note 18)	1999
Cash Provided From (Used For) Operations		
Cash receipts from customers	$ 1 352	$ 1 079
Cash paid to suppliers and employees	(567)	(328)
Interest paid	(490)	(471)
Interest received	79	86
	374	366
Cash Provided From (Used For) Financing		
Proceeds from long-term debt	943	315
Retirement of long-term debt	(218)	(35)
Mitigation liability	(48)	(19)
Notes payable	(237)	(197)
	440	64
Cash Used For Investment		
Additions to capital assets, net of contributions	330	332
Acquisition of subsidiaries	242	–
Taxes paid on acquisition of subsidiaries	58	–
Sinking fund payment	178	130
Pension assets	7	29
Deferred assets	41	16
	856	507
Decrease In Cash	42	77
Cash At Beginning Of Year	57	134
Cash At End Of Year (Note 12)	$ 15	$ 57

The accompanying notes are an integral part of the consolidated financial statements.

Notes to the Consolidated Financial Statements
For the year ended March 31, 2000

NOTE 1 SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements include the financial statements of the Corporation and its subsidiaries. All significant intercompany accounts and transactions have been eliminated.

a) CAPITAL ASSETS

Property, plant and equipment are stated at cost which consists of contracted services, direct labour, material and expense, a proportionate share of overhead costs and interest applied at the effective rates incurred in financing construction. Finance expense is allocated to construction until a capital project becomes operational or a decision is made to abandon, cancel or indefinitely defer construction. Once the transfer to in service is made, finance expense allocated to construction ceases and depreciation and finance expense charged to operations commences.

b) DEPRECIATION

Depreciation is provided on a straight-line remaining life basis. The major components of generating stations are depreciated over the lesser of the remaining life of the major component or the remaining life of the associated generating station.

The range of the estimated service lives of components within each major asset category is as follows:

Hydroelectric generation	40 - 100 years
Thermal electric generation	35 - 45 years
Transmission lines and stations	20 - 80 years
Distribution lines (Electrical and Gas)	10 - 60 years

Provision for removal costs of major property, plant and equipment is charged to depreciation expense on a straight-line basis over the remaining service lives of the related assets. In accordance with utility accounting practices, retirements of these assets are charged to accumulated depreciation with no gains or losses reflected in operations. The estimated service lives of the assets and the estimate of their removal costs are based upon depreciation studies conducted periodically by the Corporation. A provision for estimated future costs of removal and site restoration costs related to the decommissioning of the thermal generating stations is being recorded in the balance sheet as a liability.

c) FOREIGN CURRENCY TRANSLATION

Exposure Management Program

The impact of exchange fluctuations associated with United States (U.S.) currency has been essentially eliminated through the Corporation's Exposure Management Program. The program effectively hedges the Corporation's net principal debt and interest obligations through future U.S. export revenues and the income from U.S. sinking fund investments.

For the purposes of recording hedged U.S. dollar inflows and outflows, the exchange rate is designated based on the historical book value of the U.S. principal debt ($1.00 U.S. = $1.17 Canadian). Mismatches between U.S. dollar inflows and outflows are bridged through the use of forward exchange contracts or debt and investment instruments which are valued at the designated exchange rate.

United States Long-Term Debt

In accordance with the Corporation's Exposure Management Program, U.S. debt is translated at the rates of exchange in effect at the dates of issue or, if arranged for refinancing purposes, at the historical book value exchange rate of the debt being refinanced. U.S. debt fixed by foreign exchange contract is recorded at the contracted rate.

Current Assets and Current Liabilities
Current monetary assets and liabilities denominated in foreign currencies are translated into Canadian currency at rates of exchange prevailing at the date of the balance sheet or at rates determined under the Corporation's Exposure Management Program. The unrealized exchange gains or losses together with realized exchange gains or losses are credited or charged to operations.

Sinking Fund Investments
U.S. denominated sinking fund investments are translated into Canadian currency at the weighted average historical exchange rate of the U.S. denominated debt.

Other Transactions
Other expense and revenue transactions made in foreign currencies are translated into Canadian currency at the rates of exchange prevailing at the date of the transaction, except transactions covered by monetary contracts which are translated into Canadian dollars at the rates of exchange established by the contracts.

d) **PENSION BENEFITS**
The costs of pension benefits are determined by an independent actuary using the accrued benefit method and management's best estimate assumptions. Pension expense is comprised of the cost of pension benefits provided during the year plus the amortization of the cost of past service benefits and experience gains and losses.

The unamortized present value of past service benefits and actuarially determined experience gains or losses are recognized in the financial statements as a deferred asset or credit and are amortized over periods ranging from 13 to 18 years, the expected average service life of the employees covered by the plans.

All pension assets are stated at current market value.

e) **DEBT DISCOUNT AND EXPENSE**
Debt discount and associated issue costs are amortized to finance expense on a straight-line basis over the life of the respective debt.

f) **SINKING FUND INVESTMENTS**
The Corporation records sinking fund investments at par value. The difference between the cost and the par value of each investment is recorded as a premium or discount and is amortized on a straight-line basis over the remaining life of the investment. Any gain or loss on early disposal of investments is credited or charged to operations.

g) **TEMPORARY INVESTMENTS**
Temporary investments are recorded at cost.

h) **PLANNING STUDIES**
Planning studies costs are recorded as a deferred expense and are amortized on a straight-line basis over 15 years. The balance of the unamortized costs of a project which proceeds during the 15 year period is transferred to the capital cost of the project.

i) **VACATION EXPENSE**
The vacation expense in respect of employees' services rendered to the date of initial recognition of the liability has been recognized in the financial statements as a deferred asset and is being amortized on a straight-line basis over a period of 10 years. The annual change in the vacation liability is recorded in current operations.

j) **DEMAND SIDE MANAGEMENT PROGRAMS**
The costs of the Corporation's energy conservation programs, referred to as demand side management or "Power Smart", are deferred and amortized on a straight-line basis over periods of up to 15 years.

k) **SITE RESTORATION COSTS**
Site restoration costs are recorded as a deferred expense and are amortized on a straight-line basis over 15 years.

l) **REVENUES**
Customers' meters are read and billed on a cyclical basis. Revenues are accrued in respect of energy delivered for those cycles not yet billed.

m) **RATE REGULATION**
The prices charged for sales of electricity and gas within Manitoba are subject to review and approval by The Public Utilities Board of Manitoba (PUB).

n) **CONTRIBUTIONS IN AID OF CONSTRUCTION**
Contributions are required from customers whenever the costs of extending service exceed specified construction allowances. Contributions are amortized on a straight-line basis over the estimated service lives of the related capital assets.

o) **USE OF ESTIMATES**
The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the period. Actual results could differ from those estimates.

p) **COST OF GAS SOLD**
Cost of gas sold is recorded at the same rates charged to customers, as approved by the PUB. The difference between the recorded cost of gas and the actual cost of gas is deferred and recovered in future rates.

q) **CENTRA GAS INTEGRATION COSTS**
Costs associated with the acquisition of Centra Gas Manitoba Inc. (Centra Gas) have been deferred and are being amortized on a straight-line basis over a period of 30 years.

r) **TAXES**
The taxes payable by Centra Gas as a result of its change to non-taxable status on acquisition by Manitoba Hydro have been deferred and are being amortized over a period of approximately nine years.

s) **GOODWILL**
Goodwill, which represents the excess of purchase price over the fair value of net assets acquired, is amortized on a straight-line basis over 30 years.

NOTE 2 ACQUISITION OF CENTRA GAS MANITOBA INC.

Effective July 30, 1999, the Corporation purchased all of the issued and outstanding common shares of Centra Gas Manitoba Inc. and Minell Pipelines Ltd., for a total purchase price of $242 million. Centra Gas Manitoba Inc. is a gas distribution utility with annual sales of natural gas exceeding $330 million. Minell Pipelines Ltd. consists solely of a 70 kilometre pipeline between Saskatchewan and Manitoba. The acquisition has been accounted for using the purchase method, and the results of Centra Gas Manitoba Inc. and Minell Pipelines Ltd. have been reflected in the Corporation's results of operations from July 30, 1999. This transaction has been accounted for as follows:

	(millions of dollars)
Cash consideration paid	$ 242
Net assets acquired	
Total assets other than goodwill	$ 471
Total liabilities	(294)
Goodwill	65
	$ 242

NOTE 3 EXTRAPROVINCIAL REVENUES

	2000	1999
	(millions of dollars)	
United States	$ 286	$ 280
Ontario	61	25
Saskatchewan	29	21
	$ 376	$ 326

NOTE 4 WATER RENTALS

Water rental costs are incurred for the use of water resources by the Corporation in the operation of its hydro-electric generating stations. These costs amounted to $51 million (1999 - $51 million). In accordance with agreements with the Province of Manitoba with respect to mitigation payments (Note 17), water rentals remain fixed at current rates.

NOTE 5 FINANCE EXPENSE

	2000	1999
	(millions of dollars)	
Interest on debt, excluding Centra Gas acquisition	$ 503	$ 506
Interest on Centra Gas acquisition financing	11	–
Amortization of discount and expenses	10	11
Finance expense allocated to construction	(17)	(20)
Investment income	(86)	(84)
	$ 421	$ 413

Included in interest on debt is $42 million (1999 - $31 million) in respect of the Provincial Guarantee Fee. This fee is calculated at 0.65% of the total outstanding debt guaranteed by the Province as at each month end. In 1999, the fee was calculated as 0.50% of the total outstanding debt guaranteed by the Province as at the preceding year end.

NOTE 6 CAPITAL ASSETS

	2000			1999		
	(millions of dollars)					
	In Service	Accumulated Depreciation	Construction in Progress	In Service	Accumulated Depreciation	Construction in Progress
Generation	$ 4 117	$ 1 038	$ 39	$ 4 058	$ 972	$ 44
Transmission	602	157	49	593	146	35
Substations	1 543	570	51	1 475	528	36
Distribution	1 486	419	20	1 152	396	27
Other	690	207	29	537	175	34
	$ 8 438	$ 2 391	$ 188	$ 7 815	$ 2 217	$ 176

NOTE 7 SINKING FUND INVESTMENTS

As provided by The Manitoba Hydro Act, the Corporation pays an annual sinking fund installment to the Minister of Finance of the Province of Manitoba of not less than 1% of the principal amount of the outstanding debt on the preceding March 31, and 4% of the balance in the sinking fund at such date.

Income earned on sinking fund investments is included with investment income for the year.

Sinking funds are invested in government bonds and the bonds of highly rated corporations and financial institutions.

Sinking Funds Investments:

	2000	1999
	(millions of Canadian dollars)	
Canadian investments	$ 680	$ 603
U.S. investments	602	508
	$ 1 282	$ 1 111

The Canadian sinking fund has a weighted average term to maturity of 8.4 years (1999 - 7.6 years) and an effective yield to maturity of 7.3% (1999 - 8.0%). The U.S. sinking fund has a weighted average term to maturity of 4.1 years (1999 - 4.6 years) and an effective yield to maturity of 7.0% (1999 - 6.9%).

Investments denominated in U.S. currency are not subject to foreign exchange fluctuations as book value rates have been fixed in accordance with the Corporation's Exposure Management Program.

If U.S. sinking funds had been translated at the exchange rate prevailing at the balance sheet date ($1.00 U.S. = $1.4535 Canadian), the investments as at March 31, 2000 would have increased by $149 million Canadian (1999 - increased by $150 million Canadian).

Sinking Fund Contributions:

	2000	1999
	(millions of Canadian dollars)	
Annual Required Installment		
Canadian investments	$ 56	$ 52
U.S. investments	51	44
Additional Contribution		
Canadian investments	28	23
U.S. investments	43	11
	$ 178	$ 130

NOTE 8 PENSION ASSETS AND OBLIGATION

Manitoba Hydro employees are eligible for pensions under the Manitoba Civil Service Superannuation Fund (the Fund). The Fund is a defined benefit plan which requires the Corporation to contribute 50% of the pension disbursements made to retired employees.

The most recent actuarial valuation for the Corporation's obligation was performed in 1999-00 with respect to the liability outstanding as at December 31, 1999. This valuation incorporated management's best estimate assumptions and took into consideration the long-term nature of the plan. The pension liability amounted to $358 million at March 31, 2000 (1999 - $369 million).

Pension expense recorded for the year ended March 31, 2000 was $16 million (1999 - $18 million).

The Corporation fully funds its pension obligation and has recorded pension assets at a market value of $425 million (1999 - $369 million). The pension assets' value at cost is $342 million (1999 - $334 million). The assets are managed on behalf of the Corporation by the Manitoba Civil Service Superannuation Board. Pension assets are invested as follows:

	2000	1999
	(millions of dollars)	
Bonds and debentures	$ 166	$ 173
Equities	191	126
Mortgages	31	30
Short-term cash	15	21
Real estate	22	19
	$ 425	$ 369

In addition, Centra Gas has defined benefit pension plans covering substantially all of its employees. Pension fund assets amounted to $51 million at March 31, 2000, while accrued pension fund obligations were $50 million at March 31, 2000.

NOTE 9 DEFERRED DEBT COSTS

	2000	1999
	(millions of dollars)	
Debt discount and expense	$ 63	$ 72
Premium on purchases of sinking fund investments	32	27
Other	26	31
	$ 121	$ 130

NOTE 10 OTHER DEFERRED ASSETS

	2000	1999
	(millions of dollars)	
Demand side management programs	$ 37	$ 35
Planning studies	70	56
Goodwill	64	-
Taxes	53	-
Pension valuation	-	42
Vacation expense	10	13
Receivables	11	17
Site restoration costs	8	7
Centra Gas integration costs	11	-
Other	21	13
	$ 285	$ 183

NOTE 11 LONG-TERM DEBT

The Corporation's long-term debt is either issued by the Corporation or advanced from the Province of Manitoba. In 1999-00, the Corporation arranged advances from the Province of Manitoba in the principal amount of $898 million (1999 - $315 million) for investment and refinancing purposes as follows:

- $125 million due September 1, 2009 with a floating coupon rate.
- $125 million due September 1, 2029 with a 6.25% coupon rate.
- $291 million due February 22, 2010 with a floating coupon rate.
- $176 million ($150 million U.S.) due February 22, 2010 with a floating coupon rate.
- $181 million ($150 million U.S.) due March 15, 2020 with a 5.79% fixed coupon rate.

In addition, the Corporation completed financings of $45 million ($40 million maturing in 2013; $5 million maturing in 2018) in connection with mitigation settlements.

	2000	1999
	(millions of dollars)	
Total long-term debt:		
Advances from the Province of Manitoba represented by debenture debt of the Province	$ 6 123	$ 5 383
Manitoba HydroBonds	410	469
The Manitoba Hydro-Electric Board Bonds	76	31
Centra Gas Manitoba Inc. Debentures	161	-
	6 770	5 883
Less Current portion of long-term debt	159	-
	$ 6 611	$ 5 883

Long-term debt is guaranteed by the Province of Manitoba. Centra Gas Manitoba Inc. Debentures are valued at their fair market value at the time that Centra Gas was acquired by Manitoba Hydro.

Debt amounts are summarized by years to maturity in the following table:

	2000				1999
	(millions of Canadian dollars)				
Years	Canadian Maturities	U.S. Maturities	Total Principal Amount of Maturities	Weighted Average Yield Rate	Total Principal Amount of Maturities
2001	$ 159	$ -	$ 159	5.48%	$ 157
2002	142	-	142	5.31%	189
2003	183	-	183	6.12%	127
2004	3	-	3	7.18%	-
2005	3	-	3	7.22%	-
	$ 490	$ -	$ 490	5.89%	$ 473
2006-2010	576	413	989	5.88%	312
2011-2031	2 656	2 635	5 291	8.09%	5 098
	$ 3 722	$ 3 048	$ 6 770	7.91%	$ 5 883

Debt denominated in U.S. currency is not subject to foreign exchange fluctuations as book value rates have been fixed in accordance with the Corporation's Exposure Management Program.

If U.S. debt had been translated at the exchange rate prevailing at the balance sheet date ($1.00 U.S. = $1.4535 Canadian), the obligation would have increased by $731 million Canadian (1999 - increased by $819 million Canadian).

NOTE 12 BANK BALANCES AND TEMPORARY INVESTMENTS

	2000	1999
	(millions of dollars)	
Bank balances	$ 6	$ -
Temporary investments	9	57
	$ 15	$ 57

The Corporation has a bank credit facility which provides for overdrafts and notes payable up to an amount of $500 million denominated in Canadian and/or U.S. currency.

NOTE 13 DEFERRED LIABILITIES AND CREDITS

	2000	1999
	(millions of dollars)	
Mitigation liability (Note 17)	$ 91	$ 136
Mitigation liability assumed on behalf of the Province of Manitoba (Note 17)	17	20
Employee benefits	48	47
Refundable advances from customers	18	16
Pension valuation	16	-
Decommissioning of thermal generating stations	14	13
Interest income and other credits	1	2
	$ 205	$ 234

NOTE 14 FOREIGN EXCHANGE CONTRACTS

The Corporation utilizes foreign exchange contracts to manage timing differences in its short-term U.S. cash flows. All foreign exchange forward contracts are denominated in U.S. currency. As at March 31, 2000, contracts in the net amount of $9 million U.S. had been purchased forward at a weighted average exchange rate of $1.4083 (1999 - $2 million U.S. sold forward at a weighted average exchange rate of $1.4943).

NOTE 15 FINANCIAL INSTRUMENTS

Fair Value:
The estimated fair values of the Corporation's long-term debt and sinking fund investments is based on year-end market interest and exchange rates for similar debt and investment instruments. As at March 31, 2000 the estimated fair value of the Corporation's total long-term debt amounted to $8 112 million (1999 - $7 929 million). The estimated fair value of sinking fund investments which the Corporation uses solely for the purpose of repaying long-term debt amounted to $1 480 million at March 31, 2000 (1999 - $1 374 million).

The carrying values of foreign exchange contracts approximate fair value due to the relative stability of foreign exchange rates and the short period to maturity.

The carrying values of all other financial assets and liabilities approximate fair value.

Credit Risk:
Credit risk on sinking fund investments, pension assets and short-term investments is minimized as the Corporation invests exclusively in government-guaranteed bonds or other highly rated investments. The majority of the Corporation's accounts receivable are owing from domestic consumers who are in diversified industries and from sales to other utilities.

Interest Rate Risk:
Interest rate risk is associated with notes payable net of temporary investments, the current portion of long-term debt net of the current portion of sinking fund investments, and floating rate long-term debt which totalled $1 132 million at March 31, 2000 (1999 - $479 million). For information purposes an increase of 1% in the interest rate would reduce net income by $11 million for March 31, 2000 (1999 - $5 million).

Manitoba Hydro utilizes interest rate swaps to manage the Corporation's interest rate exposure. These swaps include blended forward interest rate swaps that have been transacted on $2 billion of debt at blended rates ranging from 6.5% to 7.4%. The lower interest rates produced by these swap transactions reduced finance expense by approximately $28 million in the 1999-00 fiscal year (1999 - $19 million) which reflects the impacts of the cash requirements associated with these obligations.

NOTE 16 COMMITMENTS

Outstanding commitments, principally for construction, are approximately $184 million (1999 - $110 million).

NOTE 17 MITIGATION

As a result of the Corporation's northern development projects in past years, a number of communities experienced adverse impacts. The Corporation is committed to providing fair compensation to affected communities for the impacts of its development projects, and to date $419 million (1999 - $396 million) has been spent in mitigating and compensating the project-related impacts.

The Corporation is party to an agreement dated December 16, 1977, with Canada, the Province of Manitoba and the Northern Flood Committee Inc., representing the five First Nations in the communities of Cross Lake, Nelson House, Norway House, Split Lake and York Landing. This agreement, in part, provides for compensation and remedial measures necessary to ameliorate the impacts of the Churchill River Diversion and Lake Winnipeg Regulation projects.

Expenditures incurred to mitigate the impacts of the Churchill River Diversion and Lake Winnipeg Regulation projects amounted to $23 million for the year ended March 31, 2000 (1999 - $20 million). In recognition of the anticipated mitigation payments to be incurred, the Corporation has recorded a mitigation liability of $91 million (1999 - $136 million). Reassessments of this liability will be made as settlements are achieved. There are other mitigation issues, the outcomes of which are not determinable at this time.

The Corporation entered into agreements with the Province of Manitoba whereby the Corporation has assumed obligations of the Province with respect to northern development projects. The Corporation has assumed obligations totalling $101 million (1999 - $100 million) of which $17 million (1999 - $20 million) remains outstanding in exchange for which water power rental charges were fixed until September 30, 1999.

NOTE 18 SEGMENTED INFORMATION

The Corporation operates primarily in two business segments, electricity and gas. Each segment has their own particular economic characteristics and differs in nature, production processes and technology.

The Electricity segment is the Corporation's core activity and encompasses the generation, transmission and distribution of electricity.

The Gas segment represents natural gas distribution activities, principally through the operations of the Corporation's wholly owned subsidiary, Centra Gas Manitoba Inc.

The following table contains information related to the results and assets by segment:

	Electricity		Gas		Total	
	2000	1999	2000	1999	2000	1999
	(millions of dollars)					
Revenue	$ 1 123	$ 1 082	$ 269	-	$ 1 392	$ 1 082
Operating & administrative	231	223	37	-	268	223
Depreciation	215	198	12	-	227	198
Water rentals	51	51	-	-	51	51
Fuel & power purchased	33	59	-	-	33	59
Capital & other taxes	41	38	17	-	58	38
Cost of gas sold	-	-	182	-	182	-
Finance expense	404	413	17	-	421	413
Total expenses	975	982	265	-	1 240	982
Net income	$ 148	$ 100	$ 4	-	$ 152	$ 100
Total assets	$ 8 112	$ 7 866	$ 580	-	$ 8 692	$ 7 866
Cash flows:						
Cash receipts from customers	$ 1 139	$ 1 079	$ 213	-	$ 1 352	$ 1 079
Cash paid to suppliers and employees	(366)	(328)	(201)	-	(567)	(328)
Interest paid net	(392)	(385)	(19)	-	(411)	(385)
Cash provided from (used for) operations	$ 381	$ 366	$ (7)	-	$ 374	$ 366
Cash provided from (used for) financing	$ 442	$ 64	$ (2)	-	$ 440	$ 64
Cash used for investment	$ 790	$ 507	$ 66	-	$ 856	$ 507

NOTE 19 COMPARATIVE FIGURES

Where appropriate, comparative figures for 1999 have been reclassified in order to conform to the presentation adopted in 2000.

millions of dollars

	*2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
Revenues										
Electrical:										
Residential	300	300	299	312	301	272	277	271	261	255
General Service	395	400	394	388	378	358	356	349	338	323
Winnipeg Hydro	42	48	46	50	56	54	53	53	54	50
Extraprovincial	376	326	297	268	246	253	232	143	97	67
Other Revenue	10	8	5	5	4	4	3	3	3	4
Gas:										
Residential	137	–	–	–	–	–	–	–	–	–
Commercial/Industrial	130	–	–	–	–	–	–	–	–	–
Transportation	1	–	–	–	–	–	–	–	–	–
Other Revenue	1	–	–	–	–	–	–	–	–	–
	1 392	1 082	1 041	1 023	985	941	921	819	753	699
Expenses										
Operating and Administrative	268	223	212	223	222	219	212	215	217	234
Depreciation	227	198	191	178	169	160	153	139	118	96
Water Rentals	51	50	56	51	47	45	44	46	38	33
Fuel and Power Purchased	33	59	14	13	14	10	18	7	10	18
Finance Expense	421	413	420	420	427	429	414	426	343	260
Capital and Other Taxes	58	39	37	37	36	22	10	10	9	9
Cost of Gas Sold	182	–	–	–	–	–	–	–	–	–
	1 240	982	930	922	915	885	851	843	735	650
Net Income (Loss)	152	100	111	101	70	56	70	(24)	18	49
Assets										
Capital Assets in Service	8 438	7 815	7 441	7 089	6 866	6 634	6 395	6 160	5 602	4 522
Less Accumulated Depreciation	2 391	2 217	2 054	1 899	1 778	1 638	1 502	1 374	1 259	1 153
Construction in Progress	188	176	221	274	222	173	174	197	514	898
Sinking Fund Investments	1 282	1 111	988	637	555	527	456	420	365	412
Current and Other Assets	1 175	981	1 021	1 032	872	753	1 020	622	1 283	985
	8 692	7 866	7 617	7 133	6 737	6 449	6 543	6 025	6 505	5 664
Liabilities and Retained Earnings										
Long-Term Debt - net	6 611	5 883	5 548	4 246	4 767	5 011	5 158	4 858	4 528	4 358
Current and Other	988	1 050	1 242	2 241	1 486	1 025	1 044	900	1 689	1 040
Contributions in Aid of Construction	275	267	261	191	130	129	113	108	105	101
Retained Earnings	818	666	566	455	354	284	228	159	183	165
	8 692	7 866	7 617	7 133	6 737	6 449	6 543	6 025	6 505	5 664
Cash Flows										
Cash Provided From Operations	374	366	297	273	265	240	232	131	171	158
Cash Provided From Financing	440	64	262	256	141	(211)	447	(291)	1 060	483
Cash Used For Investment in Capital Assets	330	332	248	297	271	233	270	331	697	431
Financial Indicators										
Interest Coverage [1]	1.35	1.23	1.25	1.23	1.16	1.13	1.16	0.95	1.04	1.13
Debt Ratio [2]	0.83	0.84	0.86	0.88	0.91	0.92	0.93	0.95	0.94	0.94

1 Interest Coverage represents net income (loss) plus interest on debt divided by interest on debt.

2 Debt Ratio represents debt (long-term debt plus notes payable minus temporary investments) divided by debt plus retained earnings plus contributions in aid of construction.

* Consolidated statistics include the operations of Centra Gas Manitoba Inc. from July 30, 1999.

	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
INTEGRATED SYSTEM MANITOBA HYDRO & WINNIPEG HYDRO										
Winter Capability (000 kW) [1]	5 116	5 137	5 137	5 343	5 343	5 343	5 343	5 343	5 077	4 545
Manitoba Firm Peak Demand (000 kW)	3 524	3 559	3 490	3 409	3 588	3 268	3 514	3 404	3 398	3 505
Percentage Change	-1.0	+2.0	+2.4	-5.0	+9.8	-7.0	+3.2	+0.2	-3.1	-1.8
Total Energy Made Available (000 000 kW.h)										
Manitoba Hydro Generation	29 035	29 235	33 079	30 874	28 325	27 138	26 438	26 747	22 911	19 881
Winnipeg Hydro Generation	1 111	808	952	968	993	981	1 010	1 067	1 036	973
Total Generation	30 146	30 043	34 032	31 842	29 318	28 119	27 448	27 814	23 947	20 854
Total Metered Energy Imported from Canada and U.S.A.	870	1 225	942	1 201	1 238	1 086	1 130	970	1 013	1 762
Isolated System	9	17	28	35	33	30	28	25	23	21
Total System Supply (Integrated & Isolated)	31 025	31 285	35 002	33 078	30 589	29 235	28 606	28 809	24 983	22 637
Manitoba Load (at Generation)										
Energy Distributed for Manitoba (000 000 kW.h)										
Integrated System	19 101	19 398	19 095	19 249	19 024	17 793	18 077	17 745	17 587	17 409
Isolated System	9	17	28	35	33	30	28	25	23	21
Total Manitoba Load (at Generation)	19 110	19 415	19 123	19 284	19 057	17 823	18 105	17 770	17 610	17 430
Percentage Change	-1.6	+1.5	-0.8	+1.2	+6.9	-1.6	+1.9	+0.9	+1.0	+0.8
MANITOBA HYDRO SYSTEM										
Electricity Sold (000 000 kW.h)										
Residential	4 928	4 947	4 937	5 340	5 288	4 800	5 027	4 868	4 807	4 882
General Service	9 448	9 657	9 430	9 159	8 931	8 454	8 493	8 352	8 199	8 145
Winnipeg Hydro Deliveries	2 402	2 410	2 384	2 447	2 479	2 376	2 399	2 367	2 439	2 448
Direct Customers	43	43	54	56	55	57	65	70	86	123
Total Energy Supplied for Manitoba	16 821	17 057	16 805	17 002	16 753	15 687	15 984	15 657	15 531	15 598
Total Scheduled Energy Exported	10 911	11 404	13 567	11 499	9 659	9 425	9 103	9 013	5 689	3 849
Extraprovincial Balance[2]	(135)	(710)	774	1 032	837	886	425	965	971	947
Total Metered Energy Exported to Canada and U.S.A.	10 776	10 694	14 341	12 531	10 496	10 311	9 528	9 978	6 660	4 796
Total System Demand	27 597	27 751	31 146	29 533	27 249	25 998	25 512	25 635	22 191	20 394
Total System Losses	11.1%	11.3%	11.0%	10.7%	10.9%	11.1%	10.8%	11.0%	11.2%	9.9%
Gas Deliveries (Billions of cubic feet)										
Residential	18.7	–	–	–	–	–	–	–	–	–
Commercial/Industrial	25.6	–	–	–	–	–	–	–	–	–
Transportation	12.9	–	–	–	–	–	–	–	–	–
Total	57.2	–	–	–	–	–	–	–	–	–
Number of Customers										
Electrical:										
Residential	352 618	349 710	345 847	343 197	340 567	338 539	335 811	333 133	330 688	328 620
General Service	49 405	49 153	48 481	48 204	48 067	47 738	47 415	47 137	46 695	46 625
	402 023	398 863	394 328	391 401	388 634	386 277	383 226	380 270	377 383	375 245
Gas:										
Residential	222 110	–	–	–	–	–	–	–	–	–
Commercial/Industrial	23 651	–	–	–	–	–	–	–	–	–
	245 761	–	–	–	–	–	–	–	–	–
Number of Employees [3]										
Regular	3 806	3 277	3 113	3 021	3 124	3 167	3 175	3 292	3 356	3 207
Construction	866	836	868	905	859	774	869	940	946	956
	4 672	4 113	3 981	3 926	3 983	3 941	4 044	4 232	4 302	4 163

1 During 1997-98, Manitoba Hydro adopted the Uniform Rating of Generating Equipment (URGE) for reporting the capability of its generating stations. The conversion brings the utility's rating and reporting practices in line with other members of the Mid-Continent Area Power Pool. The URGE ratings are a better reflection of the actual net capability compared to nominal values that have been used in the past. Prior years have not been restated.

2 Extraprovincial balance includes unscheduled energy flows through Manitoba and energy supplied out of province for delivery out of province.

3 Number of employees is at March 31 of each year. Regular employees are primarily involved with the ongoing operation and maintenance of the system. Construction employees are primarily involved with the capital programs of the Corporation. In 2000, 555 regular and 82 construction employees were added as a result of the acquisition of Centra Gas Manitoba Inc.

The Manitoba Hydro-Electric Board

Front row, from left:

Hon. Saul Cherniack, PC, CM, Q.C.
Winnipeg, Manitoba

Victor H. Schroeder, Q.C.
Levine Levene Tadman
Barristers and Solicitors

Garry Leach
President
Gerdau M.R.M. Steel

Gerard Jennissen
Member of the Legislative
Assembly for Flin Flon
Province of Manitoba

Back row, from left:

Michael Spence
Mayor of Churchill and
member of the York Factory
First Nation

Rod J. Beaudry
Retired Manitoba Hydro
employee

Charles E. Curtis
Financial Advisor to the
Minister of Finance
Province of Manitoba

Stan McKay
Former Moderator
United Church of Canada

Maria den Oudsten
Chairman of the Board
New Flyer Industries

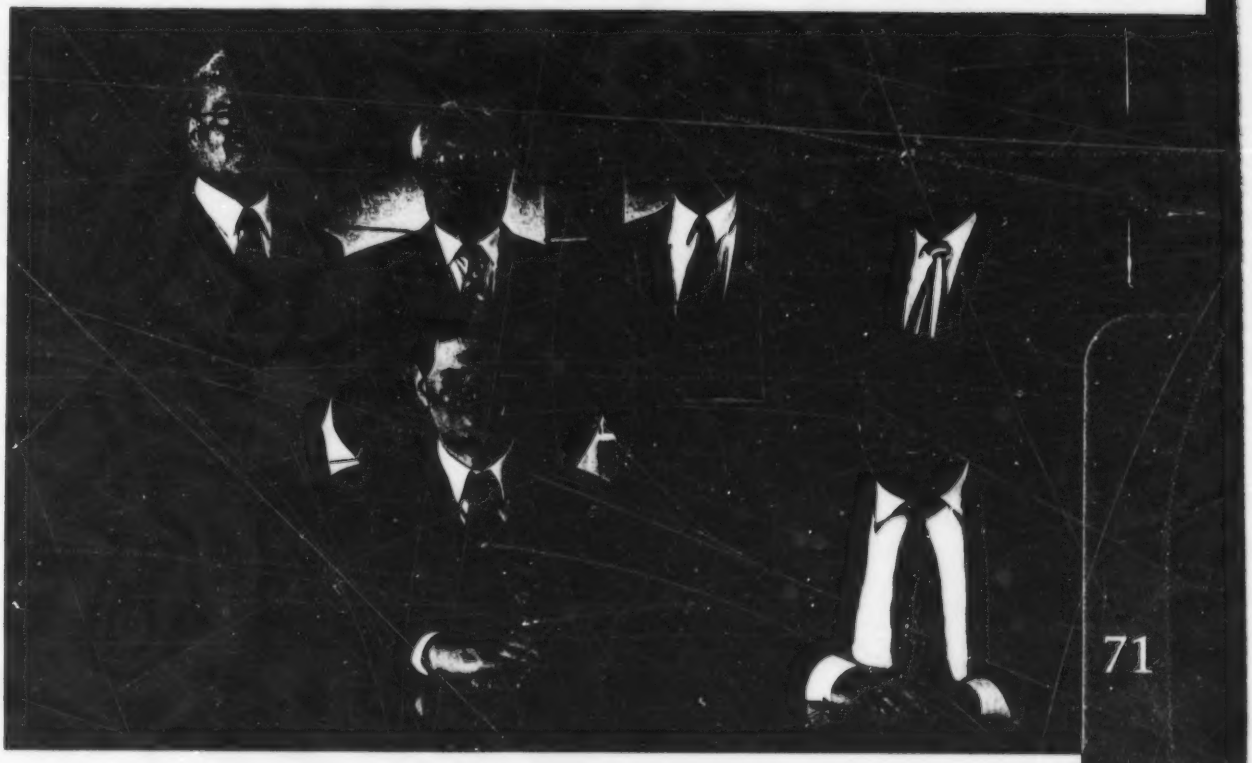
Ken Hildahl
Director of Operations
Manitoba Government
Employees Union

Phil Dorian
Executive Director
Swampy Cree Tribal Council

Former Members:

John S. McCallum
James E. Downey
Ken MacMaster
John T. Puchniak
George B. Campbell
Doug Harvey
Debra Jonasson-Young

Manitoba Hydro Senior Officers



Front row, from left:

Ken M. Tennenhouse
General Counsel &
Corporate Secretary

Robert B. Brennan, FCA
President &
Chief Executive Officer

Back row, from left:

Gerry W. Rose
Vice-President
Customer Service &
Marketing

F. Al Macatavish
Vice-President
Transmission & Distribution

Vince A. Warden
Vice-President
Finance & Administration &
Chief Financial Officer

Al M. Snyder
Vice-President
Power Supply

Glossary

City Gate: The point or measuring station at which a natural gas distribution utility receives gas from a transmission company. The transmission function may or may not be part of the distribution utility.

Cogeneration: The simultaneous production of electrical and thermal energy from the same fuel source. Cogeneration makes more efficient and economical use of resources than if both forms of energy were produced separately.

Demand: The size of any load, expressed in kilowatts, averaged over a specified period of time.

Distribution system: The wood poles, conductors and transformers that deliver electricity to customers. It transforms high voltages to lower, usable levels. Electricity is distributed at 120/240 volt (V) for most residential customers and 120 V to 600 V for the majority of industrial and commercial customers.

Energy: The ability to do work. Electrical utilities sell electrical energy to their customers who, in turn, convert this energy into a desirable form – such as work, heat, light or sound. It is measured in kilowatt hours (kW.h).

Generator: A machine that converts mechanical energy – such as rotating turbine driven by water or steam or wind – into electrical energy.

Natural gas: Natural gas is a fossil fuel, made from hydrocarbons stored millions of years ago when plant and material was buried in the earth's crust. Composed mostly of methane, a colourless and non-toxic substance, natural gas creates virtually no unburned particles or smoke to pollute the atmosphere. The products of combustion are chiefly carbon dioxide and water – the same products exhaled by the human body.

Peak load: Record of maximum amount of electricity used in a given time period.

Power grid: A number of interconnecting electrical power systems which link together electrical utilities covering a large geographical area.

Transmission system: The towers and conductors that transport electricity in bulk form from a source of supply to either local areas for distribution, or to power systems of out-of-province electrical utilities. Electricity is usually transported via transmission lines in amounts ranging from 66 kV to 500 kV.

Written-Pole ® Motor: A technology which allows electric motors to be designed for extremely low starting currents and high operating efficiencies.

Accounting terms

Retained earnings: Net accumulated earnings that a business has not distributed to shareholders.

Sinking fund: A fund of cash and securities set up to provide for the orderly retirement of a debt.

Financial Instrument: Bonds, provincial advances, short-term promissory notes, temporary and long-term investments and swap option and foreign exchange contracts.

Swap: An agreement between two parties to exchange cash flows at predetermined rates on specified notional amounts at specified future dates.

Forward Interest Rate Swap: An agreement between two parties to exchange predetermined fixed and floating interest rates on a specified notional amount of a principal debt or investment for a specified term beginning at a future date.

Blended Forward Interest Rate Swap: An agreement between two parties to exchange predetermined fixed and floating interest rates on a specified notional amount of a principal debt or investment for a specified term. The fixed interest rate is a bond yield calculation based on the fixed interest rate of the existing debt or investment and the fixed interest rate of the forward interest rate swap.

Foreign Exchange Contract: An agreement to exchange a predetermined amount of currency on a specified future date at a specified price.

Exposure Management Program: U.S. dollar hedging program used by the Corporation to offset U.S. dollar cash flows from debt, investments and net exports to eliminate the impact of fluctuations in the U.S. dollar exchange rate.

Yield: The average return of a debt or investment using a bond yield convention which recognizes the future interest payments, capital gains or losses, commissions, discounts and premiums.

Weighted Average Yield Rate: The average return of debt or investment using the bond yield convention weighted by the remaining term to maturity.

Units of Measure

BTU: British thermal unit. The amount of energy required to raise the temperature of one pound of water one degree Fahrenheit. It works out to about 1 000 joules.

Gigawatt (GW): The unit of electrical power equivalent to one billion watts or one million kilowatts.

Gigajoule: A measure of energy of natural gas – one billion joules. One gigajoule of energy is equivalent to that provided by approximately 278 hours of electricity or 30 litres of gasoline.

Joule: A unit of energy.

Kilovolt (kV): The unit of electrical pressure, or force, equivalent to 1 000 volts (V).

Kilowatt-hour (kW.h): The unit by which electrical energy is measured. For example, 10 – 100 W light bulbs switched on for one hour would use one kilowatt-hour (1000 W for one hour).

Megawatt (MW): The unit of electrical power equal to one million watts or 1 000 kilowatts (kW).